



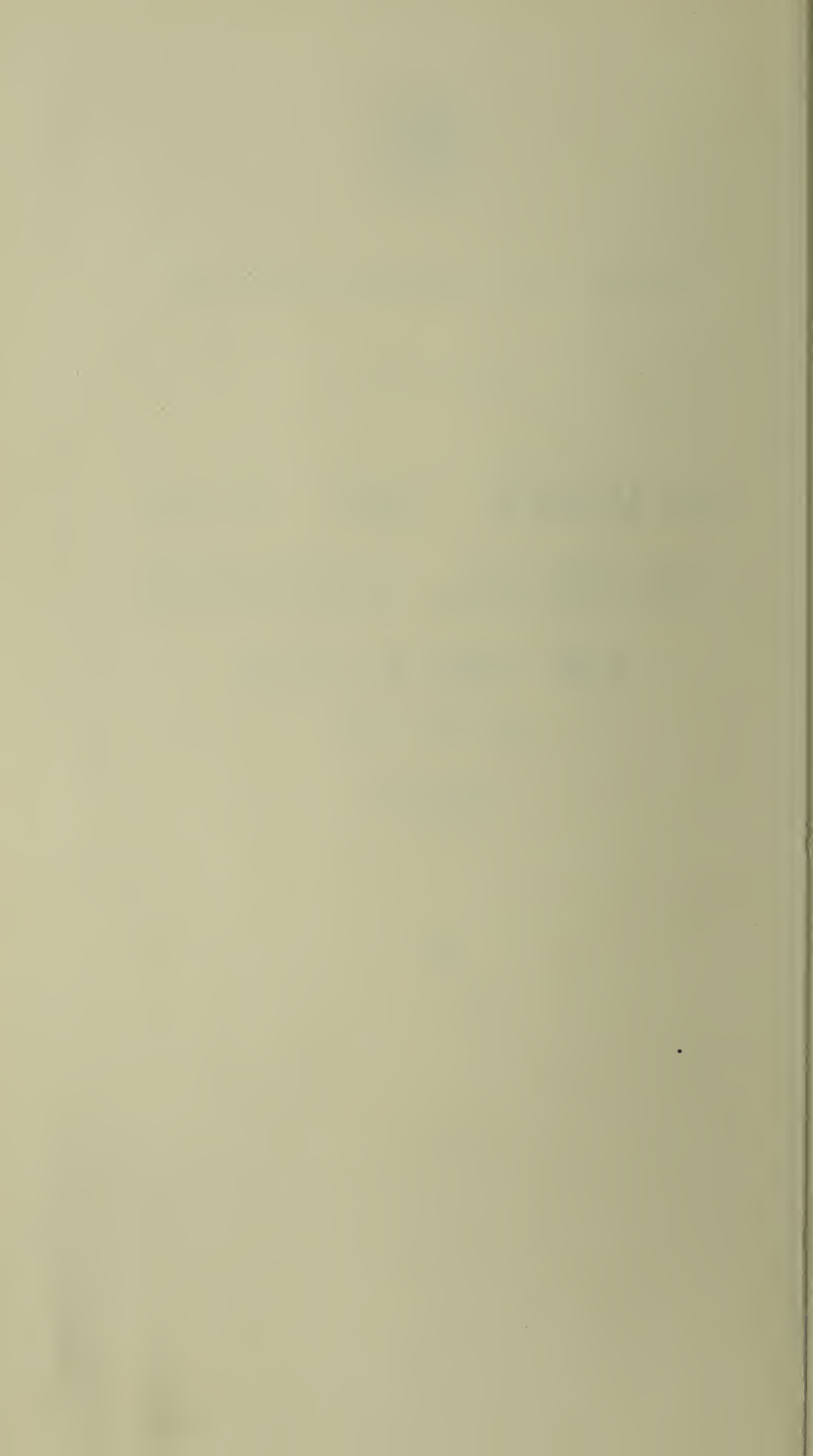
CITY OF BIRMINGHAM

REPORT OF THE
MEDICAL OFFICER
OF HEALTH

FOR THE YEAR

1950





CONTENTS

1. Members of the Health Committee.
2. Staff of the Public Health Department.
3. Medical Officer of Health's Introduction.
4. Birmingham—items on climatology, geology, etc.
5. Social Conditions.
6. "50 Years of Public Health in Birmingham."
7. *Vital Statistics.*
 - (a) Summary of Statistics.
 - (b) Population.
 - (c) Births and Deaths.
 - (i) Births.
 - (ii) Deaths
 - (d) Infant Mortality.
 - (e) Births, Deaths and Infant Mortality Rates by Wards.
 - (f) Notifiable Disease.
8. *General Epidemiology.*
 - (a) Diphtheria Immunisation.
 - (b) Poliomyelitis.
 - (c) Venereal Disease.
 - (d) Vaccination.
9. Laboratory Services
 - (a) Analytical Laboratory.
 - (b) Public Health Laboratory Service.
10. *Tuberculosis.*
11. *Maternity and Child Welfare.*
12. *National Health Service Act.*
 - (a) Section 21.
 - (b) Section 22. (See Maternity and Child Welfare).
 - (c) Section 23. do.
 - (d) Section 24. do.
 - (e) Section 25. do.
 - (f) Section 26. (See General Epidemiology).
 - (g) Section 27.
 - (h) Section 28.
 - (i) Section 29. (See Maternity and Child Welfare).
 - (j) Section 31.
13. *National Assistance Act.*
14. *Secretarial and Accountancy.*
15. *Food and Drugs.*
16. *Sanitary Conditions.*
17. *Housing.*

MEMBERS OF THE HEALTH COMMITTEE

Municipal Year, 1950-51

Chairman : COUNCILLOR W. F. SMITH.

(Chairman of Health Education Sub-Committee, Staff Sub-Committee and Staff Discipline Sub-Committee).

THE LORD MAYOR. (ALDERMAN A. PADDON-SMITH, J.P.).

ALDERMAN W. T. BOWEN.

ALDERMAN E. J. DENTON, J.P.

ALDERMAN MRS. A. M. HOWES, M.B.E., J.P.

ALDERMAN MRS. N. HYDE, J.P.

ALDERMAN MRS. A. LONGDEN, J.P.

COUNCILLOR G. P. ACHURCH, M.B.E.

(Chairman of Tuberculosis (Domiciliary and After-Care) Sub-Committee).

COUNCILLOR G. C. BARROW.

COUNCILLOR L. CHAFFEY.

COUNCILLOR MRS. M. A. M. COOKE.

COUNCILLOR F. F. GRIFFIN.

(Chairman of Finance and General Purposes Sub-Committee).

COUNCILLOR D. H. HOWELL.

COUNCILLOR W. A. N. JONES.

COUNCILLOR J. M. MORRIN.

COUNCILLOR MISS E. M. PITT.

(Chairman of Maternity and Child Welfare Sub-Committee).

COUNCILLOR MRS. H. L. RADFORD.

COUNCILLOR A. SHANKS, M.C.

COUNCILLOR MRS. J. M. SHAW.

COUNCILLOR F. B. WILLMOTT.

COUNCILLOR H. V. WOLLASTON.

COUNCILLOR MRS. A. F. WOOD, J.P.

(Chairman of Mental Health Sub-Committee).

COUNCILLOR S. A. WYNN.

CONTRIBUTORS TO THE REPORT.

	<i>Pages</i>
Birmingham—Relief, Geology and Climatology.	
By M. J. WISE, Esq., M.C., B.A.,	
Department of Geography, Birmingham University	
and A. L. KELLEY, Esq., F.R.Met.Soc.,	
Observer, Meteorological Observatory, Edgbaston	19
Social Conditions.	
By Dr. E. L. M. MILLAR,	24
Fifty Years of Public Health in Birmingham.	
By DR. W. NICOL	32
Vital Statistics.	
By DR. E. L. M. MILLAR	38
General Epidemiology.	
By DR. E. L. M. MILLAR	49
Laboratory Services :—	
(a) Analytical Laboratory.	
By MR. H. H. BAGNALL	72
(b) Public Health Laboratory Service.	
By DR. B. R. SANDIFORD,	
Director, Public Health Laboratory, Birmingham	76
Tuberculosis.	
By DR. J. E. GEDDES	83
Maternity and Child Welfare.	
By DR. JEAN M. MACKINTOSH	99
National Health Service Act	174
Health Centres—Section 21.	
By DR. E. L. M. MILLAR	176
Care of Mothers and Young Children—Section 22.	} See Maternity and Child Welfare.
Midwifery—Section 23.	
Health Visiting—Section 24.	
Home Nursing—Section 25.	
Vaccination and Immunisation—Section 26.	
(See General Epidemiology)	49
Ambulance Services—Section 27.	
By MR. H. W. COLEMAN,	
Chief Officer, Fire and Ambulance Service	178
Prevention of Illness, Care and After-Care—Section 28.	
By DR. E. L. M. MILLAR	186
Domestic Help—Section 29	
(See Maternity and Child Welfare)	159
Mental Health Services—Section 51.	
By DR. W. R. MARTINE	196

National Assistance Act.	.	
By DR. E. L. M. MILLAR	.....	200
Secretarial and Accountancy.		
By MR. C. C. BATEMAN	.....	202
Food and Drugs.		
By DR. W. R. MARTINE	.....	208
Sanitary Conditions.		
By MR. A. W. TURLEY	.....	224
Housing.		
By MR. D. J. E. LAMB	.....	250

STAFF OF THE PUBLIC HEALTH DEPARTMENT AS AT 31st DECEMBER, 1950

Medical Officer of Health :

MATTHEW BURN, M.C., M.M., F.R.C.P. (Edin.), D.P.H., D.T.M. & H.

Deputy Medical Officer of Health :

E. L. M. MILLAR, M.Sc., M.D., Ch.B., D.P.H.

Secretary-Accountant :

C. C. BATEMAN, A.C.A., F.C.C.S.

Senior Assistant Medical Officer of Health for Maternity and Child Welfare :

J. M. MACKINTOSH, M.D., Ch.B., D.P.H., D.P.A.

Senior Assistant Medical Officer of Health for General Purposes :

W. R. MARTINE, O.B.E., T.D., M.D., Ch.B., D.P.H.

Assistant Medical Officer of Health for General Purposes :

W. NICOL, M.B., Ch.B., D.P.H.

Assistant Medical Officer of Health for Diphtheria Immunisation :

VERA FELLOWES, M.B., Ch.B.

Senior Assistant Medical Officer of Health for Mental Health :

Post Vacant.

Chief Sanitary Inspector :

A. W. TURLEY, Cert. R.S.I.

Chief Housing Inspector :

D. J. E. LAMB, M.C., Cert. R.S.I.

City Analyst :

H. H. BAGNALL, B.Sc., F.R.I.C.

Manager of Works :

C. K. SMITH.

SECRETARIAL AND ACCOUNTANCY

Secretary-Accountant :

C. C. BATEMAN, A.C.A., F.C.C.S.

Assistant-Secretary :

E. S. EYRE.

Secretary to the Medical Officer of Health :

W. G. DEELEY.

Deputy Accountant :

J. F. THOMPSON.

Assistant Accountant :

L. H. FERRER.

Statistics Clerk :

L. RAWLINGS, F.C.I.S.

Steward :

L. H. LEA.

Steward for Home Nursing :

S. L. GILLMAN.

Assessment Officer :

H. B. COLEMAN.

General :

Clerical Staff	103
----------------	-------	-------	-------	-------	-------	-------	-------	-------	-----

Miscellaneous Staff :

Architectural Staff	2
---------------------	-------	-------	-------	-------	-------	-------	-------	-------	---

Bacchus Road Garage—

Chauffeurs, Drivers, and Mechanics	11
------------------------------------	-------	-------	-------	-------	-------	-------	-------	-------	----

Bacchus Road Laundry—

Laundry Assistants	28
--------------------	-------	-------	-------	-------	-------	-------	-------	-------	----

Engineering Staff	3
-------------------	-------	-------	-------	-------	-------	-------	-------	-------	---

Central Stores—

Storekeeper	1
-------------	-------	-------	-------	-------	-------	-------	-------	-------	---

Stores Assistants	6
-------------------	-------	-------	-------	-------	-------	-------	-------	-------	---

Caretakers

5

Cleaners (Full and Part-time)

12

Porters

2

Night Watchmen

2

MATERNITY AND CHILD WELFARE

Senior Assistant Medical Officer of Health for Maternity and Child Welfare :

J. M. MACKINTOSH, M.D., Ch.B., D.P.H., D.P.A.

Chief Assistant to Senior Assistant Medical Officer of Health for Maternity and Child Welfare :

B. HATHERLEY, M.B., Ch.B., M.M.S.A.

Medical Superintendent for Nurseries and Deprived Children :

M. C. O'BRIEN, M.B., Ch.B., D.P.H., M.M.S.A.

Administrative Assistant Medical Officers for Maternity and Child Welfare :

E. M. ALEXANDER, M.R.C.S., L.R.C.P., D.C.H., D.P.H.

F. M. EARLE, M.B., Ch.B., D.C.H., D.P.H.

V. J. M. STARK, M.D., Ch.B., D.P.H.

Assistant Medical Officers for Maternity and Child Welfare :

E. BADENOCK, M.D., Ch.B.
 B. G. BAILEY, M.B., Ch.B.
 J. BENNETT, M.B., Ch.B., L.R.C.P., M.R.C.S.
 U. COX, M.R.C.S., L.R.C.P., D.P.H.
 M. C. MACKIE, M.B.E., M.B., Ch.B.
 M. MCINTOSH, M.B., B.Ch., B.A.O.
 M. MCKINLAY, M.B., Ch.B., D.P.H.
 J. E. PRESTON, M.B., Ch.B.
 M. E. RICHARDS, B.Sc., M.B., B.Ch., D.Obstet.R.C.O.G., and M.R.C.O.G.
 M. F. THORNTON, M.B., B.Ch., B.A.O.
 C. M. SUTHERLAND, M.B., Ch.B.

Part-time Assistant Medical Officers : 26

Health Visitors :

Superintendent of Health Visitors :

MISS I. H. SINNETT, S.R.N., S.C.M., H.V.Cert., Diploma in Nursing.

Deputy Superintendent of Health Visitors :

MISS M. G. MILNER, S.R.N., S.C.M., H.V.Cert.

Assistant Superintendent of Health Visitors and Home Help Organiser :

MISS J. M. PEARSON, S.R.N., S.C.M., H.V.Cert.

Health Visitor Tutor :

MISS L. M. WOOD, S.R.N., S.C.M., H.V.Cert., H.V.Tutor's Cert.

Assistant Health Visitor Tutor ..	1
Superintendents of Infant Welfare Centres	32
Senior Health Visitors	4
Health Visitors	73
Health Visitors (Part-time)	4
Pupil Health Visitors	25
Psychiatric Social Worker	1
Clinic Nurse	1
Clinic Nurses (Part-time)	5
Dental Nurse	1
Physiotherapists (Part-time)	5
Chiropodist (Part-time)	1

Human Milk Bureau :

Nurses 2

Midwives :

Supervisors of Midwives :

MISS B. A. LAWSON, S.R.N., S.C.M., H.V.Cert.

MISS B. COOPER, S.R.N., S.C.M., H.V.Cert..

MISS E. E. JONES, S.R.N., S.C.M., H.V.Cert., M.T.D., Queen's Nurse.

Municipal Midwives 125

Maternity Nurses 16

Dentist :

MR. F. J. HASTILOW, L.D.S. (Part-time).

Health Education :

Organiser and Lecturer for Male Health Education :

G. G. TAYLOR.

Organiser and Lecturer for Female Health Education :

MISS M. BETTNEY, S.R.N., S.C.M., H.V.Cert.

Assistant Lecturers for Health Education	3
--	---

Day Nurseries :

Supervisor of Day Nurseries :

MISS D. E. MALLEY, S.R.N., S.C.M., H.V.Cert.

Assistant Supervisors of Day Nurseries	4
--	---

Day and 24-hour Nurseries' Staff :

Matrons	44
Deputy Matrons	35
Superintendents of Wardens	2
Wardens	40
Staff Nursery Nurses	123
State Enrolled Assistant Nurses	5
Nursery Assistants	254
Student Nurses	176

Home Nursing Service :

Chief Nursing Superintendent :

MISS E. G. GOUDGE, S.R.N., S.C.M., H.V.Cert., Queen's Nurse

Superintendents of District Nurses Homes	10
Nursing Staff	64
Nursing Staff, part-time	37
Student District Nurses	6

John Foster Vince Memorial Home (Mother and Baby Home) :

Matron :

MISS A. CULLIS, S.R.N.

Other Nursing Staff	1
---------------------------	---

<i>Clerical Staff</i>	27
-----------------------------	----

Miscellaneous Staff :

Clinic Assistants	43
Domestic Helps	103
Domestic Helps (Part-time)	202
Care of the Aged—Night Watchers	11
Home Nursing Domestic Staff (Full and Part-time)	17
Caretakers	36
Curator	1
Cleaners (Full and Part-time)	191
Cooks, Cook-housekeepers and Assistants	23
Gardeners (Full and Part-time)	11
Handyman	1
Day Nursery kitchen staff helps	10
Porters	3
Seamstresses	3
Storekeepers	2
Van drivers	3

DIPHTHERIA IMMUNISATION DEPARTMENT

Assistant Medical Officer of Health for Diphtheria Immunisation :

VERA FELLOWES, M.B., Ch.B.

Nursing Staff	2
Nursing Staff (Part-time)	4
Clerical Staff	5

MENTAL HEALTH DEPARTMENT

Senior Assistant Medical Officer of Health for Mental Health :

Post vacant.

Chief Inspector :

T. H. MIDDLETON.

Senior Inspector and Petitioning Officer:

F. R. C. BATEMAN.

Inspector (Male)	1
Inspectors (Female)	2
Clerical Staff	4

Senior Psychiatric Social Worker :

T. G. RANKIN, B.A. Hons. (Oxon.), B.A. Hons. (Lond), (Psychology)
Mental Health Cert.

Psychiatric Social Workers	2
Clerical Staff	1

Chief Authorised Officer :

E. J. DICKINSON.

Deputy Chief Authorised Officer :

J. W. GREEN.

Duly Authorised Officers	3
Clerical Staff	1

CHEST CLINIC.

After-Care Department.

Senior Tuberculosis Officer (Part-time) :

J. E. GEDDES, M.D., Ch.B.

Medical Officers (Part-time) :

H. J. T. ROSS, M.R.C.P. (Edin.).

J. MORRISON-SMITH, M.D., M.R.C.P. (Edin.), D.P.H., D.T.M. & H.

J. SUMNER, M.C., M.D. (Durham).

J. M. TAYLOR, M.D.

H. E. THOMAS, M.D., M.R.C.P.

Tuberculosis Visitors	10
Domiciliary Occupational Therapist	1
Clerical Staff	7

SANITARY INSPECTORS DEPARTMENT.

Chief Sanitary Inspector :

A. W. TURLEY, Cert. R.S.I.

Deputy Chief Sanitary Inspector :

H. HOWES, Cert. R.S.I.

Divisional Sanitary Inspectors	2
Enforcement Officer	1
Assistant Enforcement Officer	1
District Sanitary Inspectors	10
Sanitary Inspectors	30
Pupil Sanitary Inspectors	1
Smoke and Factories Inspectors	5
Milk and Dairies Inspectors	5
Milk Samplers	2
Rodent Officers	3
Water and Canal Boats Inspector	1
Shops Act Inspectors	4
Clerical Staff	26

Miscellaneous Staff :

Disinfecting Staff	13
Court Cleansing Staff	2
Rodent Control Staff	27
Scabies Clinic Nurse	1
Bath Attendants (Part-time)	3
Summer Lane Mortuary—Caretakers	2

Inspection of Cow Sheds and Dairies and of Meat and other Foods is carried out by the Veterinary Department on behalf of the Health Committee.

Chief Veterinary Officer :

C. G. ALLEN, M.R.C.V.S., D.V.S.M., F.R.S.I.

HOUSING INSPECTORS DEPARTMENT.

Chief Housing Inspector :

D. J. E. LAMB, M.C., Cert. R.S.I.

Deputy Chief Housing Inspector :

W. G. BARLOW.

Divisional Housing Inspectors	2
District Housing Inspectors	5
Housing Inspectors	8
Housing Assistants	5
Clerical Staff	19

ANALYTICAL LABORATORY.

City Analyst :

H. H. BAGNALL, B.Sc., F.R.I.C.

Deputy City Analyst :

A. H. COOMBES, B.Sc., F.R.I.C.

Assistant Analysts	.....	.....	.....	.....	.....	.....	.....	.....	5
Laboratory Assistants	.....	.....	.....	.....	.....	.....	.....	.....	4
Food and Drugs Inspectors	.....	.....	.....	.....	.....	.....	.....	.....	3
Clerical Staff	.....	.....	.....	.....	.....	.....	.....	.....	2

WORKS DEPARTMENT.

Manager :

C. K. SMITH.

Administrative Assistant	.....	.....	.....	.....	.....	.....	.....	.....	1
Clerks of Works	.....	.....	.....	.....	.....	.....	.....	.....	2
General Foreman	.....	.....	.....	.....	.....	.....	.....	.....	1
Clerical Staff	.....	.....	.....	.....	.....	.....	.....	.....	6
Tradesmen	.....	.....	.....	.....	.....	.....	.....	.....	49

PUBLIC HEALTH DEPARTMENT,
THE COUNCIL HOUSE,
BIRMINGHAM.

July, 1951.

To the Chairman and Members,
Health Committee.

I have the honour to submit a statement on the work of the Public Health Department in this my first Annual Report covering the year 1950. It is the work of many hands, and I have felt it desirable to name in the Table of Contributors to the Report each individual sectional head who has been responsible for the compilation of that portion of the report dealing with the work they directly control. Whilst I am responsible for the whole of the Report, my colleagues have been given the opportunity of freely expressing their own views and with which I concur.

It has been said that there is no more important function of government than the protection of Public Health, and bearing this in mind I naturally must draw attention to the Housing needs as set out in Dr. Millar's report on *Social Conditions* and in Mr. Lamb's report on *Housing*. Good housing is to me the foundation stone upon which to ensure mental and physical health, and it gives me great anxiety in knowing that thousands of our citizens are forced to live either in unfit houses or under seriously overcrowded conditions because of the lack of available houses. Under these conditions of living an educative process is taking place, the evil results of which can be seen as the children advance in years—the expenditure of money at this stage to attempt to remedy the mental and physical faults is surely uneconomical, and it is to the causative factor—bad housing—that we should give our attention. It is, therefore, with much happiness that I note the increased rate of house building. May it increase tenfold—a wise investment with rich dividends.

Dr. Millar draws attention in the report on *Vital Statistics* to the ageing population—*i.e.*, the numbers in the the younger group falling and the reverse process in the older groups. The reduced birthrate for 1950 (1,221 less births) will further affect this process and we can expect accentuation of the problem for many years to come. Indeed we are fully conscious of it now and active steps are being taken to expand those services dealing with the care of the aged.

At the other end of the scale it is to be noted with satisfaction that the *infant mortality rate* reached a new low level of 30, though the still-birth rate has increased by 1·3.

In Dr. Mackintosh's report it is pointed out that the incidence of prematurity has increased and I should like to stress the desirability that women who go into premature labour two months or more before the expected date should, if possible, be admitted to hospital for the delivery—by so doing the chance of survival of the baby is increased.

I am pleased to record the active co-operation which exists between General Practitioners, our Midwives and the Department in relation to ante-natal and post-natal care and I, personally, welcome this extension of the Practitioners' work which gives a continuity of care to the mother. By active co-operation between the Department, Midwives and the Doctors, and the placing of our facilities at the disposal of the Doctors much benefit will accrue to all, for indeed the Practitioner is the agent of prevention for the family group—the Medical Officer of Health to the community.

The work done by the Health Department on behalf of the Children's Committee is fully set out in the section of the Report dealing with Maternity and Child Welfare which shows the liaison and active co-operation which exists between the two staffs.

It has been deprecated that General Hospitals, Sanatoria and Fever Hospitals have passed out of our control and hence our work in preventive medicine would be adversely affected. In Birmingham, I am happy to say that our relation with the staffs at those hospitals and sanatoria, and our work in association with them has not changed in any way since the transfer. In the field of epidemiology I should like to pay high tribute to Dr. John McGarrity, Superintendent of Little Bromwich Isolation Hospital and his staff whose association with ourselves continues on the same high level of co-operation as it did prior to 1948. His retirement in 1951 will, indeed, be a loss to our Department.

Dr. Millar gives a detailed account of the outbreak of *Infantile Paralysis* which we experienced in 1950, when 442 confirmed cases occurred with a mortality rate of 13·1%, the rate for 1949, when 68 cases occurred, being 8·8%.

This increased incidence of the disease showed itself particularly in the British Isles and Scandinavia, while there was a marked decrease in Canada and the United States. There was also a marked increase in Alaska, Australia and the Belgian Congo. The increased incidence in Birmingham occurred earlier in the year than expected, and reached its peak in July when 130 cases arose. While there were 442 cases recognised it must be remembered that for each such case there may be 100 other individuals infected who do not show a clinical pattern and therefore cannot be diagnosed. It is this characteristic which lends mystery to the spread of this disease and limits the value of quarantine measures. The conditions for infection are not essentially different from those required for the propagation of other common infectious diseases, *i.e.*, close personal contact.

The attack rate was 1 in 2,500 approximately. In other words for the population as a whole the risk of contracting the disease was 1 in 2,500.

In age group 0–5 years one child in 570 developed the disease.

In age group 5-15 years one child in 910 was affected while in the group 15 years upwards only 1 person in 9,830 suffered.

If attacked by recognisable poliomyelitis three persons in four developed paralysis.

Of the 442 cases which occurred in the City 322 developed paralysis of varying severity at some time during the course of the disease. One child in every 4 affected with paralysis recovered completely, but over the age of 15 years only one person in every 6 who suffered paralysis showed complete recovery.

Many laborious investigations were carried out by the staff in order to eliminate possible, though highly improbable sources of infection and to obtain data on the sociological conditions of the affected households. I should like to mention one interesting feature, *i.e.*, the *manifested* incidence of the disease was, as usual, confined to the better type of artisan dwelling and the association of a cleanly home is a striking feature brought to one's notice when investigating the disease. The significance of this is not fully apparent but may be an indication of susceptibility due to lack of previous contact with the various strains of virus causing the disease.

Immunisation against Diphtheria continues to be a most important part of our work, and it gives great satisfaction to note that while in 1926 (in age group 0-15) there were 1,415 cases and 111 deaths, in 1950 only 75 cases occurred with no deaths. It is unnecessary for me to point out the advantages gained in terms of elimination of suffering and of deaths and incidentally the saving of a vast sum of money which would otherwise have been spent on nursing 1,400 cases per annum at say £10 per week for six weeks (an average stay in hospital for a Diphtheria case). This is indeed an example of preventive medicine but it is impersonal, it is unspectacular and therefore is generally unappealing. The Health Committee are to be congratulated in showing wisdom in accepting the advice of its officers to commence the scheme many years ago.

Whooping Cough continues to be a serious disease and one of the chief killing diseases of childhood. Of perhaps equal importance to its mortality rate are the morbidiform conditions left in its train which predispose the child to other respiratory infections. I await with anticipation the availability of a reliable immunising agent in order that we may commence an immunisation scheme against Whooping Cough, as is done against Diphtheria.

Dr. Martine in his report on the *Mental Health Services* gives details of the work carried out and I look forward to the time when it will be possible to effect unification and fusion of these important services. Such a scheme, together with the appointment of a whole-time Senior Assistant Medical Officer of Health for this section of work has been accepted and I hope soon will come to fruition.

The *supervision of food preparation premises, dairies, etc.*, is fully set out in Dr. Martine's report, and I should like to emphasise the importance of this preventive work which is carried out by the staff concerned in a most efficient and understanding manner. There are no spectacular results to show for their successes—it is only the failures which come to light.

Tuberculosis is dealt with in the report of Dr. J. E. Geddes in which he shows the commendable integration which exists between the Regional Hospital Board, the Hospital Management Committees and the Local Authority. I should like to emphasise this happy relationship which exists, and to thank the officers for their most active co-operation—a co-operation which reflects itself in benefits to the patients and relatives. It is indeed gratifying to note that, as in past years, there is again a decrease in the numbers of new cases of tuberculosis and in the deaths from that disease. Especially would I draw attention to the remarkable reduction in deaths in the young female age group 15–24 years—a reduction of 54% since 1939.

The decreases noted give added hope and optimism and with further sustained efforts over the next ten years I believe the eradication of tuberculosis, or at least it being brought to the level of unimportance, is within sight. The armamentarium in our fight against the disease is now further enlarged in having at our disposal material for the vaccination of contacts to prevent them contracting tuberculosis (B.C.G. vaccine); the domiciliary treatment of tuberculosis and the use of new drugs such as Streptomycin and P.A.S., and the better housing of the affected through the kind co-operation of the Housing Management Committee and its Department in giving increased allocations of houses. These, and increased efforts to trace and examine contacts and so detect the early case will, I am sure, cause still further reduction in both the incidence of tuberculosis and in the deaths from that disease.

The five principal killing diseases are diseases of the circulatory system, cancer, diseases of the respiratory system, diseases of the nervous system and tuberculosis. Cancer causes one death in every six deaths and there is an undoubted rise in numbers of cases of cancer of the lung and prostate. This rise is not confined to Birmingham, but is common to the whole country.

Ere this report is published the retirement of Mr. A. W. Turley, our Chief Sanitary Inspector, will have taken place after 38 years' service. I should like now to record his most excellent service—his retirement will be a loss felt by us all.

It has been a pleasure to welcome numerous visitors from abroad who have expressed a desire to see and to hear of the administration and organisation of the Health Services provided for the City. They included many eminent members of the medical profession, members

of the Ministries of Health in the various countries, and on three occasions press delegations. The countries from which these visitors came included America, France, Germany, Switzerland, Portugal, Israel, India, China, Indo-China and British Guiana.

I am indebted to Dr. E. L. M. Millar, my Deputy, for his great kindness in acting as Editor, and to my Secretary, Mr. W. G. Deeley, for his invaluable help given not only in the compilation of the Report, but in the day to day activities since I took office as Medical Officer of Health. His help so very considerably lightens my tasks. And to all those other unmentioned members of the department I should desire to record my very grateful thanks for their active co-operation and help so willingly and kindly given to me at all times. My very warm thanks are also tendered to those others who, while not members of the staff, most readily agreed to contribute to this Report.

To members of the Health Committee I can only say " Thank You " for the kindly and understanding manner shown to me at all times.

MATTHEW BURN,

Medical Officer of Health.

BIRMINGHAM—RELIEF, GEOLOGY AND CLIMATOLOGY

General

The City of Birmingham with an estimated population of 1,117,900 and an area of 51,147 acres is a modern city and enjoys world-wide reputation as a centre of industry and of progressive local government. It can be regarded as the capital of the Midlands, and by its area and population alone can claim the title of "The Second City of Britain," besides being the largest and most populous provincial city in England. Situated as it is in the heart of the Midlands, 108 miles from London, it is served by the main services of the road, rail and canal systems of the country. On the north and west there is the continuous succession of towns in the area of the "Black Country" of Staffordshire, which comprises the coal-mining, iron-mining and metal-working industries. To the south and east it adjoins the rural stretches of Worcestershire and Warwickshire.

Birmingham is renowned for its diversity of trades which number some 1,500, and in consequence derives its title "Workshop of the World."

Relief and Geology of Birmingham

Through the kind co-operation of M. J. Wise, Esq., M.C., B.A., Lecturer of the Department of Geography of Birmingham University, the following interesting item on the Relief and Geology of Birmingham has been prepared :—

Relief¹

The City of Birmingham occupies a position at the heart of the Birmingham Plateau, an area of upland country with an average height of over 400 feet, which stretches from Brocton, near Stafford in the north to the vicinity of Redditch in the south and, west to east, from Stourbridge to Nuneaton : the City Centre itself stands at an average elevation of about 450 feet O.D.

Within the City, the Plateau has been dissected by the River Tame and its right bank tributaries the Hockley Brook, Rea and Cole. The Tame enters the city at Hamstead in the north-west and flows in an open valley through Perry Barr and Witton to Erdington and Castle Bromwich in the north-east. The original site of Birmingham was at a point overlooking the Rea valley to the east, near which a suitable crossing point of that valley existed.

North of the Tame valley, the ground rises steadily to the suburbs of Kingstanding and Erdington and reaches 565 feet at Kingstanding. South-west of the Tame the ground has been dissected by, in particular, the Rea and its tributaries, but rises in the south-western suburbs where a small portion of the Lickey Hills is included within the city boundary.

¹ *Vide* Birmingham and its Regional Setting : *A Scientific Survey* (1950). pp. 3-18.

The eastern suburbs of Birmingham, east of the Rea valley, are, in general somewhat lower and of more gentle relief, with elevations varying between 300 and 400 feet, and are drained by the wide and open valleys of the Rivers Cole and Tame. These valleys were formerly subject to serious flooding but, with the exception of the River Tame at Perry Barr and Witton, seasonal flooding no longer presents a serious problem.

Geology¹

Birmingham rests on a wide belt of Triassic rocks. From the geological point of view the city is divided into two districts by the line of the Birmingham Fault which runs in a general N.N.E.—S.S.W. direction from Erdington in the north, through the city in Digbeth, to Selly Oak and the vicinity of Northfield. East of this fault the characteristic rock is the Keuper Marl which weathers into a heavy, reddish coloured clay. Immediately west of the fault line is the outcrop of the Lower Keuper Sandstone. The outcrop of this red or reddish-brown sandstone usually corresponds with high ground, and extends from Sutton Coldfield, outside the City boundary to the north, through Erdington and the city centre to Edgbaston and Northfield in the south. It will be noted that many early centres of settlement in the district are found on this formation which, in early medieval times, offered well-drained sites, with good water supply, comparatively free from the dense vegetation which characterised the clay country to the east, with easily worked soils and a usable building stone. The early settlement of Birmingham was made on this formation near to the present site of St. Martin's Parish Church. It is probable that the good drainage facilities offered by this sandstone assisted in ameliorating public health conditions in the eighteenth and nineteenth century industrial town.²

Much of the western and north-western parts of the city, including Harborne, Winson Green, Handsworth, Perry Barr, Witton and Kingstanding, are underlain by deposits of Bunter age including sandstones and Pebble Beds. These offer well-drained conditions but, in general, only a poor soil. In the extreme west and south-west, at Quinton, Bartley Green and Rubery, and in the extreme north at Hamstead, Upper Coal Measure sandstones and marls outcrop, while over a very limited area between Rubery and Rednal, where the city boundary fringes the Lickey Hills, older rocks, of Silurian and Cambrian age, appear.

¹ For further details see T. Eastwood and others. *The Geology of the Country around Birmingham*, Memoir of the Geological Survey of Great Britain (1925).

² Report from the Select Committee on the Health of Towns, 1840.

Drift Deposits

Over considerable areas of the city, the solid geological formations are masked by glacial drift, consisting of deposits of sands and gravels and boulder clay. The deposits vary considerably in thickness but, particularly in eastern Birmingham, where the Keuper Marl is so extensive, they have often exercised an important influence in providing sites with good drainage and water supply which were suitable for early settlement. Many of the present suburbs as, for example, Moseley, Tyseley, Stechford and Acock's Green are situated on patches of drift. In western Birmingham drift deposits of sands, gravels and boulder clay are extensive and overlie the Bunter sandstones and Pebble Beds over wide areas in the Harborne, Winson Green and Handsworth districts. The effect of these deposits combined with the character of the solid rocks to produce an acid, infertile soil on which, until comparatively modern times, large tracts of heathland, e.g., Birmingham and Handsworth heaths, were characteristic.

Climatology

The Birmingham and Midland Institute, nearly 62 years ago, established the Meteorological Observatory at Edgbaston, and since then observations of the main weather elements have continued to the present time. Six observations are carried out per day, at 6 a.m., 9 a.m., 12 noon, 3 p.m., 6 p.m. and 9 p.m. The Observer, A. L. Kelley, Esq., F.R.Met.Soc., has kindly supplied the following details arising out of his observations for the year under review :—

Weather Summary

Mild Winter, Variable Spring, Wet Summer, Very Dry October,
Very Wet November and Very Cold December.

Except for a cold snap at the end of January, the early part of the year was again rather mild.

The mean temperature of February and March was well above average for those months, but in January the mean temperature was only a little above the January average.

Rainfall was exceptionally low in January, being the lowest total for that month since 1889.

On the other hand February rainfall was very high, giving the second highest total for February in the records at Edgbaston.

March was rather dry with a total rainfall about one-third of an inch below normal.

Sunshine during this quarter was low in January and February, but high in March.

Snow was of rare occurrence, and the incidence of fog was a little below average.

The Spring period weather was rather variable.

Both April and May gave mean temperatures about half a degree below normal and both were low in rainfall, although the deficiency in April was small.

April provided one shock, with an unusually substantial snowfall late in the month.

Extremes of temperature in this period were not very noteworthy, whilst sunshine amount was high in April but low in May.

June however, gave, at the commencement, some real summer weather, with temperatures reaching the eighties and a mean temperature over four degrees above normal. Thundery rains gave a small excess in the monthly total, but sunshine was well above average.

The Summer quarter produced little summer weather. South-westerly conditions prevailed throughout the period and there were few breaks in the generally unsettled weather after the end of July.

Mean Temperature was practically normal in July and August, but in September was one degree below normal. Extremes of temperature were very limited.

Rainfall was excessive in all three months and particularly so in September. The total for that month was the second highest in the records at Edgbaston.

Sunshine was a little below average in July and August but the deficiency in September was more marked.

Autumn began with a very dry October, a usual occurrence after a wet summer. Sunshine and mean temperature in this month were normal.

November was very wet, the excess of rainfall being nearly as great as the deficiency in October. The mean temperature was about one degree below average, whilst, despite some very dull and wet periods, sunshine was only slightly below normal.

In December wintry weather began unusually early. Snow and frost set in on the 3rd and after a short break, 6th to 10th, wintry conditions were renewed with greater severity and, except for another short break from the 18th to the 20th, cold, frosty conditions with occasional snowfalls continued to the end of the month to give the coldest December since 1890.

It was a fairly dry December and sunshine was only slightly below normal despite the very dull period during the last eleven days, when only 0·7 hour was recorded.

TEMPERATURE DETAILS

<i>Month</i>	<i>Mean Temperature in Shade Deg. F.</i>	<i>60 years' Average</i>	<i>Highest Deg. F.</i>	<i>Date</i>	<i>Lowest Deg. F.</i>	<i>Date</i>
January	39.5	38.8	53	2nd	23	26th
February	41.8	39.2	57	17th	26	27th
March	45.8	42.0	59	7th & 25th	30	1st
April	45.6	46.3	62	7th & 20th	31	25th & 26th
May	51.7	52.2	72	31st	37	17th
June	61.7	57.4	84	6th & 7th	45	15th
July	60.6	60.8	77	9th	47	27th
August	59.9	60.1	76	6th	48	14th & 28th
September	55.0	56.0	70	4th	40	27th
October	49.3	49.7	72	5th	31	28th
November	41.9	43.0	54	28th	28	27th
December	34.2	39.9	50	1st	23	15th
YEAR	48.9	48.8				

RAINFALL DETAILS

<i>Month</i>	<i>Total Inches</i>	<i>60 years' Average</i>
Jan.	0.740	2.565
Feb.	5.280	2.010
Mar.	1.555	1.931
Apr.	1.960	2.029
May	1.610	2.313
June	2.210	2.030
July	2.955	2.540
Aug.	3.195	2.655
Sept.	4.850	2.020
Oct.	0.790	2.822
Nov.	4.580	2.650
Dec.	1.675	2.815
YEAR	31.400	28.380

SUNSHINE DETAILS

<i>Month</i>	<i>Total Hours</i>	<i>60 years' Average</i>
Jan.	30.9	42.3
Feb.	55.8	59.2
Mar.	109.5	94.7
Apr.	148.0	132.6
May	154.6	173.0
June	237.5	178.3
July	165.5	170.4
Aug.	158.6	159.7
Sept.	104.2	121.3
Oct.	88.6	86.5
Nov.	47.3	48.9
Dec.	34.1	34.6
YEAR	1334.6	1301.5

The year as a whole, rather wet, average temperature, sunshine a little above normal.

SOCIAL CONDITIONS

At this time, half way through the century, it seems appropriate to set down the following as a pictorial account of the principal social factors of life in Birmingham which have a repercussion upon health. The account will be useful for reference in years to come and will also provide a background against which the rest of the report may be studied to better advantage.

Towns which have experienced long periods of depression have their resulting scars, but Birmingham's scars and problems arise largely through a long period of comparative prosperity which has rapidly attracted immigrants from less fortunate areas. At the present time the opportunities for employment are extremely good and the large demand for female labour is reflected by the high proportion of mothers in employment, as shown in the Maternity and Child Welfare section of the report.

Figures strictly applicable to an area comprising Birmingham and a few outlying districts have been supplied by the courtesy of the local office of the Ministry of Labour and National Service. The total insured working population is given as 390,232 males and 199,512 females. The following table gives the numbers employed in the ten largest industries.

<i>Industry</i>	<i>Total Insured</i>	
	<i>Males</i>	<i>Females</i>
Vehicles	61,435	15,701
Engineering, Shipbuilding and Electrical Goods	54,110	22,255
Metal Goods not elsewhere specified	40,779	30,390
Distributive Trades	29,522	23,368
Miscellaneous Services	10,444	25,904
Metal Manufacture	27,811	4,855
Professional Services	11,920	19,713
Transport and Communication	23,711	6,436
Building and Contracting	25,388	1,031
Public Administration and Defence	14,302	5,963

Unemployment amongst the able-bodied is very little indeed, being just over 2,000 on three specific dates spaced throughout the year. Almost three-quarters of those unemployed have been in this position for a matter of days only. The number of outstanding vacancies continues to increase and approached 16,000 by the end of the year, being then about 2,500 more than the average for 1949. The industries with the greatest number of unfilled vacancies are :—

<i>Industrial Group</i>	<i>Vacancies</i>	
	<i>Males</i>	<i>Females</i>
Transport and Communication	2,608	283
Engineering, Shipbuilding and Electrical Goods	1,073	694
Metal Goods not specified elsewhere	525	910
Building and Contracting	1,181	4
Vehicles	600	433
Metal Manufacture	539	122

Disabled Persons

On 11th December, 1950, unemployed registered disabled suitable for ordinary occupations numbered only 72 men and 27 women, and the unemployed registered disabled needing sheltered employment numbered 48 men and 13 women, out of a total disabled population of 21,741 males and 3,094 females.

The Remploy factory at King's Norton, which was opened in 1946, can accommodate 50 employees, and the Remploy factory opened in May, 1950, at Sheldon, can accommodate 300 disabled employees.

The following figures are given for Birmingham Industrial Rehabilitation Unit with a capacity for 100-120 persons taking courses from 6-12 weeks' duration :—

THE BIRMINGHAM INDUSTRIAL REHABILITATION UNIT

	<i>Men</i>	<i>Women</i>	<i>Total</i>
Attending Course at I.R.U., 1st January, 1950	51	2	53
New Entrants during 1950	418	45	463
Completed Course in 1950	356	29	385
Left prematurely in 1950	59	10	69
Attending on 31st December, 1950	54	8	62
Total persons attending during 1950	469	47	516

Birmingham has over the years made rapid development industrially, and with this there has been the inevitable increase in population and acreage and the provision of public services. As the built up areas of the city expanded, great thought was unfortunately not given to planning, and in consequence there are unfavourable conditions within the central and to some lesser degree the middle ring wards.

The siting of industry was not subject to control by the local authority during the nineteenth century, with the result that dwellings and industry are to-day almost indiscriminately mixed, and in some instances, heavy industrial plants are surrounded by dwellinghouses. Many of the industries of Birmingham, notably Jewellery and Gun Smithing, were inter-related, and developed a system under which the industries proper were served by outworkers or by other small neighbouring workshops. The many small but busy workshops now found in courtyards or gardens of the older houses, of a type not generally acceptable under modern planning schemes, contributed substantially to Birmingham's prosperity and eminence in the industrial field.



The present middle ring of the city contains 93,300 houses with a population of about 346,300. For the most part every conceivable device has been used to cram as many houses as possible on the acre, and to build as cheaply as possible. The times of 100 years ago, however, made this essential. It was necessary to put up houses which could be let as a business proposition at rents which the workers could pay. Fifty years ago, although there was much overcrowding, better type houses were standing empty through the inability of families to pay the rents required for them.

Also at the period of Birmingham's most rapid development the passenger transport services were seriously inadequate, and on this account alone workers were compelled to reside near to their place of employment. Even in 1900 the limited number of trams were still steam driven, and the city was considered to be so hilly that this fact alone had been an insuperable barrier to the development of a better transport system.

Imposed by these conditions we are to-day left with a legacy of some 28,917 back-to-back houses, 62% of which are in the central wards. They are crowded together in some localities to the extent of 103, 81, 68 and 67 houses to the acre, the corresponding population per acre being 312, 245, 249 and 235. Direct sunlight has never entered many of these places whose outlook is across a few feet of brick paved yard to other houses or to the towering wall of a factory. Those houses forming a continuous row abutting on to the street are separated at the rear by a $4\frac{1}{2}$ " wall from similar houses, and facing these across the courtyards are other little houses of similar type, all massed together and using W.C's and washhouses in common.

These poor buildings came to the end of their economic life some years ago, and with the considerable rise in the cost of repairs, coupled with their steadily increasing rate of deterioration, their owners are, in many cases, only too pleased to be rid of their responsibilities. Moreover many owners regard it as unreasonable that they should be compelled to carry out repairs, the cost of which would be out of proportion to the value of the property.

The City has a major slum clearance problem. Between 1936 and 1946, 7,064 back-to-back houses in the central wards were demolished and some blocks were replaced by flats. For example, in the Emily Street district 5.564 acres comprising a slum area of 301 houses, with a population of 1,280, was replaced by flats containing 266 dwellings with a population of 1,156.

With the outbreak of war this action ceased and has not been resumed.

An ambitious re-development scheme under the Town and Country Planning Act, of 1944, is leading to the vesting in Corporation ownership of five large areas, mostly within the central wards including 29,000 houses which it is intended to replace; 22,224 had been vested by the end of 1950.

From the old central wards Birmingham has spread centrifugally in all directions, engulfing in its path the former villages which now form the nuclei of its suburbs. This later development has been planned and the more modern the districts the better the planning and amenities, and the better type and construction of individual houses.

The following figures taken from a survey of housing in 1946 give a comparison of the quality of housing in the three rings of the city. These figures are, of course, mere totals, and do not give an idea as to the worst or the best.

<i>Area</i>	<i>Total number of Houses</i>	<i>Number of bk-to-bk Houses</i>	<i>Houses without internal water</i>	<i>Houses without separate W.C.</i>
Central Wards	36,000	18,265	4,337	21,225
Middle Ring Wards	74,100	9,930	1,647	11,799
Outer Ring Wards	170,000	987	445	1,941

Although the middle ring has a much smaller proportion of back-to-back houses, small through houses built barely to conform to bye-laws under the 1875 Public Health Act, are much in evidence. These also suffer from the defect of being seriously crowded together, and the size of the back yards is in particular very small. Row upon row of these houses also have been built at the back of similar little houses facing the street, and the visitor to Birmingham, travelling along the streets, would not suspect the existence of so many houses at the rear of the long monotonous rows of houses in view.

Considerable development of the areas now forming the outer ring of Birmingham occurred about 1895, and continued vigorously until about 1910. (In 1909 Quinton was included within the city boundaries, followed by, in 1911, the borough of Aston Manor, the Urban districts of Erdington, Handsworth, King's Norton and Northfield, and the Rural district of Yardley ; thus the majority of the residential suburbs of the city became an integral part of Birmingham. In 1928 a portion of the Perry Barr area was incorporated in the City, and in 1929 further areas in Castle Bromwich and Sheldon were absorbed). Following the 1914/18 war it was decided by the Government that local authorities should build to meet the acute housing need then existing, and between the wars 51,681 grant-aided houses were built by the Birmingham Corporation, mainly in the outer ring.

Many of these houses were occupied by the newly married whose families are now grown up and their sons and daughters are themselves married. The present generation of young parents has not the opportunity which their parents had to acquire a new house for themselves, with the result that their young families are growing up in the homes of grandparents—the original tenants or owners of the houses in the outer

ring. There are, therefore, considerable overcrowding problems in this portion of the city also, but with the advantage of better surroundings, gardens, larger rooms and satisfactory amenities. One is often impressed, particularly in this part of the city, by the type of discomfort which is caused by overcrowding. The crowding of parents and children into the same bedroom, or on occasions boxroom, is physically unpleasant. Accompanying this, however, one frequently finds, in all classes of society, a state of intense animosity between tenant and sub-tenant, or between sub-tenants themselves who are frequently related. This tension is an obvious cause of mental ill-health, the full repercussions of which are difficult to assess.

Trouble often begins with the birth of the first child. The crying and shouting of small children, their running into parts of the houses where they do not belong, and the washing of napkins and special food preparation rapidly produce considerable friction between families. A notice to quit frequently follows. It is not excessively difficult for a couple to obtain reasonable accommodation in Birmingham, but with one or more children the difficulties are formidable, as the Birmingham family has to compete with those coming from other areas attracted by the prospects of well paid work. To some extent this sort of circumstance is leading to many careful and desirable couples avoiding having children whose birth automatically puts the parents into a grave housing difficulty.

Insufficiency of houses has led to the development of various sub-standard forms of accommodation. Houses in all districts and of all sizes are constantly being found to fall within the category of "houses let in lodgings." This applies particularly to the four and five bedroomed houses of the older districts, separate rooms of the house being let off at high rents to different families. It is to these places that numerous young couples raising their families have to gravitate, and where it is virtually impossible for the children to obtain proper sleep in the same room as that used by the parents by both day and night. The carrying of water, disposal of waste, cooking of meals and washing of clothes, provide, in conjunction with the care of their children, almost insuperable difficulties. Nuisances arise through such property, already dilapidated by age, being used by many people for which number of families it was never equipped.

There is every gradation between this type and the large house divided by an expert into a number of attractive flatlets or bed-sitting rooms which provide a satisfactory solution for accommodating single persons or childless couples who are away at work during the daytime. Cooking and bathing arrangements may be provided for each individual "let," or may be used in common by a group of tenants.

Occupying the sub-standard accommodation one finds families of extremely varied social grade. Many of these places have been made attractive inside by their very houseproud tenants. These are of the type

who pre-war would have secured the ownership through a building society of a modest but pleasant house in a new suburb, but now, through great scarcity of new houses for private ownership, and the high cost, are condemned to remain and make the best of their original accommodation acquired when the breadwinner's earning capacity was less good and the expense of raising his family was relatively heavy.

Next door to these desirable tenants there may be neighbours of an entirely different type, even a so called "problem" family. This small "hardcore" of social misfits is one of the problems which still awaits solution. Reading reports of 50 years ago gives one the impression that these families are now far fewer than they used to be. Poor intelligence and lack of responsibility of the parents have produced a set of circumstances which alone would tax to the full the most intelligent and hard working. The dirty house could be picked out by the most casual of passers by. The few worthless items of broken furniture inside are filthy; so are the walls, floors and everything within and outside the house. There is a big family of children, the caring for whom would more than keep the mother busy all day, but these mothers are by no means the busy type, and the children do their best to care for one another, the mother giving most of her attention to the rearing of a succession of babies to the walking stage. The father is an unskilled man who has much time off work for no good cause and spends his leisure time elsewhere than at home.

It is said that the example of better families around them has a good influence on these cases. That may well be so, but one would like to see much speedier progress being made. The existence of problem families is a great expense to the community as they absorb far more than their share of the public services provided for the community as a whole. It seems reasonable that a solution is to be found by reviving again in these parents and their older children their sense of responsibility and pride. The work of Family Service Units which tackle this from a new angle, is well worthy of support, and research is also needed into other suggested methods of dealing with the problem.

Just as friction arises by a number of families living under overcrowded conditions in a single house, the same occurs when families of better and of less desirable types occupy adjoining houses using in common the facilities for washing, refuse disposal, etc., provided in the courts. This is a serious additional objection to this type of dwelling which plans and figures cannot describe.

Although the housing of intact families presents the principal problem of accommodation, Birmingham's need to house a large number of unaccompanied adults is also great. The coloured population in Birmingham is said to be increasing and to number about 7,000 just now. These men come from West Africa and India and have settled down for the most part in one small area of the town where they have been found

occupying houses in numbers considerably in excess of the permitted number, even cellars being used as sleeping places. Others in ones and twos are lodging in private houses throughout the city.

The mobile labour forces of large firms of contractors constitute a special problem. Boarding houses, many of poor type, have been set up to meet these demands. They are not registrable but are discovered in connection with routine sanitary work or the submission of plans for erection or conversion of buildings. In the category immediately below these are the Common Lodging Houses used in the main by the very lowest income groups. Fourteen such houses have accommodation for a total of 772 males and 46 females—many of the occupants are here to-day and gone to-morrow. These houses are compulsorily registrable and frequently inspected.

It is known that a small number of persons in the city are for short periods without any proper shelter, and are found from time to time by the police sleeping in doorways, the railway stations, etc. This problem is being dealt with.

When the total population is divided by the number of houses one finds that the average number of persons per house in 1900 was 4·7 as compared with 3·9 in 1950. This however is not a criterion of the extent to which the housing position has been improved if one agrees that every family should have a house of adequate size to itself, as families in 1950 were considerably smaller than those in 1900. Hence the fall in numbers of persons per house might be accounted for by that fact alone. What we should like to have is a comparison between the numbers of houses shared by two or more families now and fifty years ago.

It is argued that the housing difficulties of to-day coupled with the great expense of setting up a home have markedly delayed the age of marriage. It is as well on this point to refer to the Registrar-General's Statistical Review for 1948—Civil Tables. Table L gives the ages of marriage of all bachelor bridegrooms over the past fifty years :—

Year	1896— 1900	1901— 1925	1931— 1935	1938	1946	1948
Average Age	26·63	27·47	27·43	27·72	27·94	28·03

Although the average ages of recent marriages are the highest of the century, there has been a postponement of marriage by an average of only 1·4 years since the beginning of the century when the age at marriage was at its lowest.

The great problem in Birmingham now is the provision of houses, accentuated by the destruction of many by bombing and the increase in demand through immigration. The steady and inevitable deterioration through age of existing houses should also be borne in mind, though its relentless progress is not readily measurable.

50 YEARS OF PUBLIC HEALTH IN BIRMINGHAM

A much troubled half century has gone, during which period the duties of the Public Health Department have altered in character and extended in scope. The more recent conceptions of preventive and social medicine have been added to the basic sanitary idea of the last century and are reflected in the dramatic rise in the personal health services of the City. Having reached the turn of the century, one feels it is a particularly suitable time to look back and recall these developments in the hope that such recollections may be of interest if not also a stimulant for the years to come.

A development no less dramatic than those above has been the growth of the City itself. This City, which in 1900 had a population of half a million and extended over 12,640 acres, has expanded, in fifty years, to one with a population of more than twice that number, covering four times that area.

This growth has largely been the result of the continued prosperity of Birmingham, which has attracted many people from other parts of the country and, more recently, immigrants from abroad. Such immigration has naturally added to the size of old health problems and raised the possibility of new ones ; nevertheless the City's health records have, in general, improved.

The developments in the City's Health Service are marked to some extent by a few of the Acts of Parliament of the last fifty years and in a summary such as this it seems appropriate to comment on some of the more important of them. Among the first Acts of this century was the Midwives Act of 1902, which attempted to raise the standard of education among midwives. The need for such a measure is apparent from the Annual Report of 1905 in which the Medical Officer of Health wrote that of the 200 midwives practising in the City 50 could neither read nor write.

The inter-war years were ones of happy public health development. The Local Government Act of 1929 passed the control of the old Poor Law Hospitals to the Health Committee, thus effecting for the first time the union of preventive and curative medicine. In 1936, a fecund year in Public Health Legislation, the Public Health and Midwives Acts greatly extended the city's personal health services. In addition, the former Act, together with the Housing Act of the same year, consolidated previous enactments.

This union of curative and preventive medicine was brought to an end by the National Health Service Act, 1946, which transferred the hospitals to the Regional Hospital Board. Under this Act the preventive and social functions of the local health service were accentuated and extended, and curative medicine was divorced from Public Health.

In these fifty years of public health legislation the health of Birmingham has continuously improved. The general death rate has fallen, as has that sensitive index of social conditions, the infant mortality rate. In addition, there have been fewer outbreaks of major epidemics.

				<i>Infant Mortality Rates</i>	<i>Death Rates</i>
1909	.....	.....	.....	121	15.1
1919	.....	.....	.....	84	13.0
1929	.....	.....	.....	79	13.5
1939	.....	.....	.....	60	11.4
1949	.....	.....	.....	31	10.7
1950	.....	.....	.....	30	10.9

These improved health records are largely the result of improved sanitary and social conditions, advances in preventive medicine and better medical care, particularly of the expectant mother and young child.

The success of improved sanitary conditions can be appreciated by the reduced incidence of Enteric Fevers, which have fallen from 842 cases in 1901 to 9 cases in 1950. That there did exist a need for such improvements is revealed by the Medical Officer of Health's report for 1908, which drew attention to the occurrence of Typhoid Fever, its apparent relationship to poor sanitary conditions, the need for improvements in such conditions, and the particular necessity of abolishing pan privies, then extremely common.

				<i>Number of Pan Closets converted</i>	<i>Number of cases of Typhoid Fever</i>
1900	.....	.....	.....	275	851
1901	.....	.....	.....	486	615
1902	.....	.....	.....	871	544
1903	.....	.....	.....	2,395	348
1904	.....	.....	.....	2,283	248
1905	.....	.....	.....	3,580	209
1906	.....	.....	.....	3,183	191
1907	.....	.....	.....	2,643	248
1908	.....	.....	.....	2,426	193

In the same report mention is made of the danger of typhoid from contaminated mussels, a letter having been sent to the Local Government Board asking that special action should be taken, an interest in clean food which has continued throughout the years.

Among the more specific achievements of preventive medicine has been the reduced incidence of Diphtheria following large-scale immunisation. Immunisation began on a very limited scale in Birmingham, in 1926, at two clinics, one at the Health Department and another smaller one at Little Bromwich Hospital. The need for extending this service was quickly appreciated and in 1928 arrangements were made for immunising the school children in the schools. In spite of the increased number protected it was obvious from the unchanging incidence of this disease that too many children were being left unprotected.

					<i>Cases of Diphtheria</i>
1906	.....	.....	.....	.....	1,165
1926	.....	.....	.....	.....	1,804
1936	.....	.....	.....	.....	1,142
1946	.....	.....	.....	.....	323
1950	.....	.....	.....	.....	105

It was only three years after the immunisation of pre-school children commenced on a large scale at the Welfare Centres in 1940 that a real and continued fall in the incidence of Diphtheria occurred.

The undoubted success of protective immunisation has directed medical thought on similar lines with reference to other diseases. In 1949 protective vaccination by B.C.G. of contacts of Tuberculosis was started. It is to be hoped that a similar degree of success meets this form of vaccination.

Some infectious diseases have shown little change in incidence during the years but the introduction of the Sulphonamide group of drugs and the other more recent Antibiotics have reduced considerably the mortality from such diseases. This is well marked in the case of Puerperal Fever, as the two periods when deaths from this infection fell markedly corresponded with the times when the above drugs became generally available.

		<i>Deaths from Puerperal Fever per 1,000 live births</i>	
1935	.....	1.45	
1936	.....	1.53	
1937	.....	0.77	} Sulphonamides came into general use.
1938	.....	0.63	
1943	.....	0.79	
1944	.....	0.62	
1945	.....	0.50	
1946	.....	0.13	} Penicillin came into general use.
1947	.....	0.29	
1948	.....	0.09	
1949	.....	0.05	

The importance of satisfactory housing conditions in the prevention of epidemic diseases has always been recognised in this City. As early as 1900, the Medical Officer of Health mentions in his report the need of finding suitable accommodation for a certain section of the working classes. A housing shortage existed then, with a population of only just over half a million. The size of the present problem can be well imagined, the City having suffered the vicissitudes of two major wars and the population having doubled. Despite the progress of building in the City, a satisfactory solution to this basic problem is still not in sight.

Certainly living conditions have greatly improved since the first report of the Medical Officer of Health in 1873, when it was recorded that of 190 miles of streets only 4 were properly paved, the unpaved

streets being a mass of wet sludge in winter and a bed of dry dust in summer, and 60 miles of streets were without sewers. The same report also stated that the closet accommodation, in the working-class homes, was entirely of the ashpit midden type and the water supply was chiefly from wells in the gardens and courts at the back of the houses, only a few feet from the middens. In addition, half the houses were of the back-to-back type, so that no through ventilation was possible.

In spite of many improvements since those days a housing shortage, with its attendant medical and social problems, persists. It is true that there has been a steady fall in the number of the back-to-back type of house and the cases of overcrowding have diminished, although there is no diminution in the gravity of individual cases.

Maternity and Child Welfare

In the last fifty years the record of the Maternity and Child Welfare services provided by the Health Department has been one of achievement and success. From its humble beginning in 1899 with four health visitors has grown the comprehensive service of to-day. This beginning was no doubt related to the high infant death rate and an increased social conscience.

The early health visitors were largely engaged in advising mothers in the care of their newly born children. Often they worked under the most adverse conditions, combating ignorance, squalor and the prejudice of years, they seldom knew when or even where children were being born. In spite of these difficulties progress was made, the number of health visitors increased and with the Notification of Births Act, 1907, the newly born children could be visited in the important first days of life. It is interesting to note that the Infant Mortality Rate fell that year and has developed a steady downward trend since.

						<i>Infant Mortality Rate</i>
1906	.....	.....	.....	.....	.....	157
1907	.....	.....	.....	.....	.....	133
1908	.....	.....	.....	.....	.....	130
1909	.....	.....	.....	.....	.....	121
1910	.....	.....	.....	.....	.....	115

This new service continued to enlarge its facilities, the first Medical Officer for infant welfare duties being appointed in 1907, while the first Infant Consultative Clinic had been opened the year previously in a small room rented for the purpose. Now there are 18 full-time and 26 part-time Medical Officers engaged in Maternity and Child Welfare duties and 33 Welfare Centres in the City, with others planned. At the modern centres complete facilities are available for the care of both the expectant mother and young child.

The improvements in the health of the children and the obvious possibility of further improvements must have stimulated the officers

of the service to greater efforts. One finds that even under the duress of war, time was found to launch, in 1916, the first "Infant Welfare Campaign." Efforts such as these have been rewarded by a degree of success beyond the hopes of the early workers.

Health education which formed so large a part of the work of the early health visitor has grown continuously, there being to-day a section entirely devoted to such work with five lecturers who carry out courses of lectures at colleges, schools and to many organisations in the City. In addition to educating the general public provision was made for more specialised medical education, by inaugurating in 1928, in conjunction with the University, a course for nurses desirous of obtaining the Health Visitors' Certificate.

During 1946 the Child Health Institute was established, creating a closer liaison between the preventive and curative branches of Pædiatrics, arrangements being made whereby Medical Officers engaged by the Health Department or Children's Hospital had opportunity to gain experience in each other's work.

With the spectacular growth of facilities for infant care the expectant mother was not forgotten. Increased provisions for her welfare were also being made. Although financial aid was not forthcoming from the Government until the Maternity and Child Welfare Act of 1918, the Health Committee, in 1917, made arrangements with Hospitals for the provision of beds for midwifery cases.

A comprehensive City Midwifery Service was established in 1937 under the provisions of the Midwives Act of 1936. It is of interest to note that the establishment of this service, which included the provision of Consultants, together with the general introduction of the Sulphonamide group of drugs coincided with the marked decline in deaths from Puerperal Fever already noted.

The period of confinement often presents, in the cases of large families and unmarried mothers, special social problems. This aspect of pregnancy was not forgotten, the Health Committee having since 1920 made a home help service available for such families, and provision for financial aid for unmarried mothers since 1943.

In recent years, with improving health and longer life, the number of old people has grown. The particular needs of the aged have been recognised. In the years to come, as this need grows, a development in such work must be anticipated.

The Effect of War

The years of war, more especially the last war, brought increased responsibilities to the Health Department. In the Preface to the Annual Report for 1949 the Medical Officer of Health comments on this fact and records how efficiently these extra duties were carried out and mentions with just satisfaction in what small degree it was possible to do away with the established services of the Department, so great a need had they filled.

The effect of war on the health of the City is difficult to assess with accuracy, certainly the infant mortality rate and maternal mortality rate suffered little permanent change and, with the exception of a marked increase in the incidence of Cerebro Spinal Fever in 1940, 1941 and 1942, epidemic disease was not unduly prevalent. The increased incidence of V.D. and the rise in the illegitimate birth rate suggests that the prevention of damage of war is more of a social than a health problem. In any case these shadows on the City's health record have been removed and will not, it is hoped, return.

Fifty years of this century have passed bringing many changes and even disappointments. These years have been years of progress, new duties have been taken on with the same willingness and zeal responsible for the achievements of the past. There are, one knows, many Public Health problems yet unsolved and it is hoped that in meeting them the success of the past will be repeated.

VITAL STATISTICS

Summary of Statistics for the Year 1950

Area 51,147 acres, i.e.	80 square miles
Population (Census, 1931)	1,002,603
Population, estimated by Registrar-General (Civilians only) as at 30th June, 1950	1,117,900

The Registrar-General's estimated mid-year civilian population has been used for all relevant purposes throughout this report, and in addition, where rates are based on less than twenty instances, these rates are printed in italics.

Birth-rate per 1,000 population	.....	16·8	(18,833 live births)
Stillbirth rate per 1,000 total live and stillbirths	.....	23·0	(444 stillbirths)
Crude Death-rate per 1,000 population		10·9	(12,149 deaths)
Area comparability factors :			
Births	0·96		
Deaths	1·12		

These factors are measures of the extent to which the local rates deviate from the expected rates, after taking into account the sex and age constitution of the local population and the birth and death rates for the whole country.

Maternal Mortality Rate per 1,000 live and still births.

Excluding 2 maternal deaths after abortion	.....	.....	0.73
Including 2 " " " "	.....	.....	0.83

Infant Mortality

Deaths of infants under one year of age per 1,000 live births :

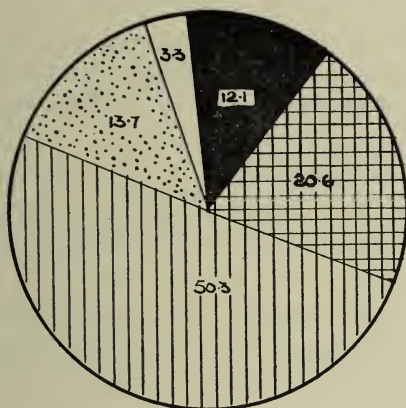
Legitimate	.....	.....	.....	.....	.....	.....	30
Illegitimate	.....	.....	.....	.....	.....	.....	37
Legitimate and illegitimate	.....	.....	.....	.....	.....	.....	30

Population

The Registrar-General's estimate of the mid-year civilian population is 1,117,900. It is worth while taking note of the growth and changing age constitution of this population over the past 50 years by reference to Table I (Page 44). The marked increase in numbers between 1901 and 1911 is accounted for largely by the extension of the City boundaries which took into Birmingham many adjoining satellite communities. In approximately the present City area however the population has grown from 840,202 in 1911 to 1,117,900 in 1950, a 33% increase on the 1911 figure.

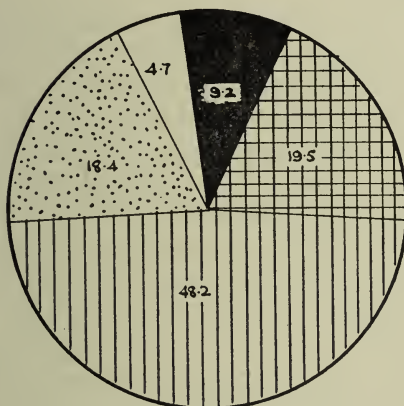
% PROPORTION OF BIRMINGHAM'S POPULATION
[IN AGE GROUPS]
IN 1901, 1921 & 1947

1901



Children under 5 yrs

1921

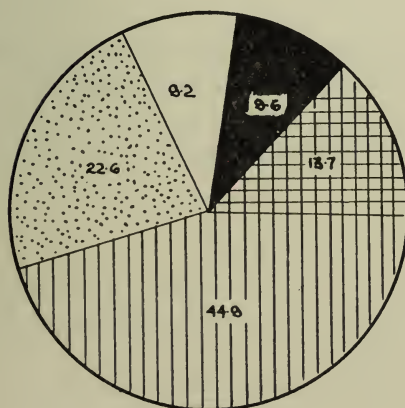


Children 5-14 yrs inclusive

Young Workers 15-44 yrs inc.

Older Workers 45-65 yrs inc.

1947



Old People 65 yrs & over

The corresponding figures for the whole of England and Wales give only a 21% increase on the 1911 population.

The slight but steady fall in the proportion of children under 5 years is the result of the decline in birth rate which fell to its lowest level of 14.7 births per 1,000 of population in 1933. Hence the low figure of 7.9% as the proportion of children under 5 years of age, a figure which has lately been improved by the recent considerable rise in the birth rate. These proportions would have been even smaller had the infant mortality rate not fallen from its high level of 176 per 1,000 live births in 1901 to 30 in 1950.

The 5-14 group has also shown a steady and marked decline in relative numbers. The 15-44 group of young workers and potential parents has declined slightly and will still further decline as the present generation of children become older and move into it.

During the same period that the City's population has doubled, the number of older workers aged 45-64 years has increased $3\frac{1}{2}$ fold and their relative proportion has advanced from 13.7% of the population in 1901 to 22.6% in 1947.

The considerable increase in the average expectation of life has produced a rise in the percentage of persons over 65 years from 3.3% in 1901 to 9.2% in 1947. This increase in expectation of life is still continuing. For babies born in 1949 it was 66.01 years for males and 70.63 years for females, being an increase over the 1931 figure of 7.27 years for males and 7.75 years for females. Occurring during times of severe stress and austerity, this remarkable gain in life has been due mainly to the suppression of "preventable" diseases among the young through improved methods of prevention and treatment and no doubt attributable also to improvement in nutrition, especially in early life.

The picture therefore is one of an ageing population in which the numbers in the younger age groups are falling and those in the older groups rising and it is certain that this feature will be accentuated in the years to come.

To draw further attention to this most important phenomenon these facts are presented in pictorial form on Page 39.

Births, Stillbirths and Infant Deaths

Births

Total births (live and still) 19,277.

Live Births: Born (a) in City, 16,990; (b) outside City, 1,843.

Total, 18,833 (17,864 legitimate, 969 illegitimate).

Population, 1,117,900.

Birth rate 16.8 per thousand population.

Illegitimate birth rate 5.1% of live births.

Stillbirths

Stillbirths 444 (425 legitimate, 19 illegitimate).

Stillbirth Rate : 23 per thousand live and stillbirths (23·8 legitimate and 19·6 illegitimate).

Infant Mortality

568 infant deaths (532 legitimate, 36 illegitimate).

Infant death rate : 30 per 1,000 live births (30 legitimate, 37 illegitimate).

Neonatal death rate : 19·2 per 1,000 live births (19·0 legitimate, 22·7 illegitimate).

The infant mortality rate has shown a further slight fall this year to establish a new low record of 30 per thousand live births, as compared with the record of 31 in 1949.

Table II (Page 45) sets out the estimated population, births, total deaths and infant deaths by wards. The central wards have all high birth rates ranging from 21·4 to 25·6 (23·9 average). Birth rates in the wards of the middle ring range between 12·0 in Edgbaston, 20·2 in Small Heath and 22·2 in Sparkbrook (17·6 average). The range of birth rates in the outer ring wards is between 12·7 and 20·4 (15·0 average). High birth rate is seen to be associated with high infant mortality rate in these groups of wards. The overall death rate also seems to have a tendency to diminish in passing from the central to the outer wards. It is likely however that the age distribution of population in the three zones is partly responsible for this, the outer ring possibly having fewer old people in whom the death rate is inevitably high.

Table III (Page 46) is inserted, not only to show the favourable trend of infant mortality, stillbirth rates and total death rates during this century, but to show also the position in Birmingham as compared with other great towns and as compared with the country as a whole. The fall in the proportion of stillbirths should be particularly noted as the fact tends to be lost sight of through being outshone by the more spectacular fall in infant mortality. There was however a slight rise in 1950.

Deaths

In 1950 there were 12,149 deaths and the death rate was 10·9 per 1,000 of population. Table III (Page 46) shows the steady fall in this rate during the past 50 years. The rates for 1940 and 1941 were swollen by deaths from air raids.

Attention is drawn to Table IV (Page 47), which shows the five most killing diseases to be diseases of the circulatory system, cancer, diseases of the respiratory system, diseases of the nervous system and tuberculosis. The relative parts which these play as causes of death are shown diagrammatically :—

PRINCIPAL CAUSES OF DEATH IN 1950 PER 1,000 OF POPULATION

FROM DISEASES OF THE
CIRCULATORY SYSTEM

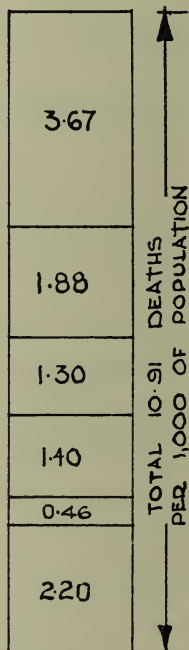
FROM CANCER

FROM DISEASES OF THE
RESPIRATORY SYSTEM

FROM DISEASES OF THE
NERVOUS SYSTEM

FROM T.B.

FROM ALL OTHER DISEASES



Circulatory diseases cause a third of all deaths and cancer causes one death in every 6. Amongst males 77.1% of cancer deaths were due to cancer of digestive and respiratory organs, whilst 60.0% of cancer deaths in women occurred in digestive and genital organs, and 21.3% were due to cancer of the breast. Respiratory tuberculosis has been causing one death in 20, but since 1945 a marked diminution in the number of deaths from tuberculosis has occurred in this and many European countries and in 1950, coincident with the introduction of streptomycin treatment, a further fall has occurred.

Table IV (Page 47) shows the considerable fall in deaths from enteric fever, measles, scarlet fever, whooping cough and diphtheria. All these diseases affected mainly children and, coupled with the vast improvement in infant mortality, has enabled many, who would formerly have died in childhood, to pass on fit and well into adult life.

The progress in the elimination of fatal disease in the middle aged has been much less spectacular. The middle aged do not die of those diseases which formerly carried off the young, in fact the killing diseases of the middle aged are uncommon in the young. Deaths from peptic ulcer, coronary disease, arterio-sclerosis and cancer are increasing in absolute numbers, but the shifting of the average population age strongly favours this as these diseases affect particularly those in the older age groups. When age is taken into account, the cancer mortality of females has actually fallen in the present century and in males the rise has been small. Some of the rise was only apparent and due to improved diagnosis, but there is an undoubted rise in the amount of cancer of the lung and prostate. In England and Wales in 1939 there were 3,751 deaths of males from cancer of the lung. By 1949 this figure had risen to 9,327 deaths. The corresponding Birmingham figures are 151 deaths in 1939, 301 in 1949 and 371 in 1950.

Finally attention is invited again to Table I for consideration of the sex distribution in the age groups. The lower age groups show a preponderance of males and the higher groups a preponderance of females. Significantly more male babies are conceived than female, but from that time the wastage amongst males is higher than amongst females at every age. There are more stillborn males than females, more male infant deaths than female, and although more live baby boys than baby girls are born, the females preponderate after middle life has been passed.

The following Birmingham figures for deaths in 1950 bear this out when considered in relation to the populations in age groups. The only group in which female deaths outnumber male is the last one. In that group the living females far outnumber the living males so it is inevitable that the deaths will do so too.

		DEATHS									
	<i>Still-</i> <i>births</i>	<i>Neo-</i> <i>natal</i>	<i>Under</i> <i>1 year</i>	<i>1</i> <i>year</i>	<i>2-4</i> <i>incl.</i>	<i>5-14</i> <i>incl.</i>	<i>15-24</i> <i>incl.</i>	<i>25-44</i> <i>incl.</i>	<i>45-64</i> <i>incl.</i>	<i>65-74</i> <i>incl.</i>	<i>75 &</i> <i>over</i>
M	244	235	350	32	40	67	96	445	1,896	1,783	1,627
F	200	126	218	23	28	29	83	356	1,211	1,561	2,304

Amongst older children, the greater desire of boys for adventure accounts only partly for their greater mortality than girls of similar age. It was thought that the stresses of employment adversely affected the chances of survival of men, but the recent increase in employment of women has not affected the disparity in death rates of men and women. Moreover, during the past 2 or 3 decades, working conditions for men have greatly improved, yet the female death rate has continued to decline faster than the male. Between 1936 and 1942, death rates of women at four quinquennial age groups between 50 and 70 showed improvements ranging from 12 to 17% whilst the corresponding improvements for males were only 5 to 13%. Between 1942 and 1947 further improvements of about 5% occurred for women but not for men. In both sexes also the married state is favourable to a substantially lower mortality rate.

TABLE I

CENSUS POPULATION—BIRMINGHAM																	Registrar-General's Estimate of Birmingham's Population on 31st December, 1947				
OLD CITY AREA				APPROXIMATE PRESENT CITY AREA																	
Age Groups	1901			1911			1921			1931											
	Number of Males	% of total pop'n	% of total Females	Number of Males	% of total pop'n	% of total Females	Number of Males	% of total pop'n	% of total Females	Number of Males	% of total pop'n	% of total Females	Est. number of Males	Est. % of total pop'n	Est. number of Females						
Under 5 years	...	31,165	6.0	31,677	6.1	46,708	5.6	46,385	5.5	42,742	4.6	42,032	4.6	40,256	4.0	39,279	3.9	53,165	4.9	50,542	4.7
5—14 inclusive	...	53,412	10.2	54,222	10.4	84,748	10.1	85,462	10.2	88,797	9.8	89,250	9.7	83,773	8.4	83,487	8.3	75,087	6.9	73,435	6.8
15—44 inclusive	...	125,753	24.1	136,624	26.2	194,781	23.2	221,455	26.4	202,838	22.0	240,739	26.2	228,813	22.8	257,886	25.7	234,441	21.6	253,995	23.3
45—64 inclusive	...	34,118	6.5	37,476	7.2	59,762	7.1	65,901	7.8	81,855	8.9	87,004	9.5	97,838	9.8	110,751	11.0	112,800	10.4	132,714	12.2
65 and over	...	7,636	1.4	10,121	1.9	14,547	1.7	20,453	2.4	18,446	2.0	25,741	2.7	25,392	2.5	35,128	3.6	40,921	3.8	58,900	5.4
TOTALS	...	252,084		270,120		400,546		439,656		434,678		484,766		476,072		526,531		516,414		569,586	

REGISTRAR-GENERAL'S ESTIMATE OF POPULATION OF ENGLAND AND WALES at 31st Dec., 1947.

		1901		1911		1921		1931			
		Number of Males	% of total population	Number of Males	% of total population	Number of Males	% of total population	Number of Males	% of total population	Est. number of Males	Est. % of total population
Under 5 years
5—14 inclusive
15—44 inclusive
45—64 inclusive
65 and over
Totals

TABLE II

BIRTH, DEATH AND INFANT MORTALITY RATES IN WARDS, 1950

	WARDS	Estimated Population	BIRTHS		TOTAL DEATHS		INFANT DEATHS	
			Number	Rate per 1,000 population	Number	Rate per 1,000 population	Number	Rate per 1,000 births
CENTRAL	St. Paul's	27,500	704	25.6	395	14.3	27	38
	Duddeston	31,100	763	24.5	398	12.8	35	46
	Deritend	24,400	610	25.0	355	14.5	19	31
	Market Hall	23,800	545	22.9	258	10.8	14	26
	Ladywood	25,000	536	21.4	358	14.3	29	54
	Totals and Average Rates of Central Wards	131,800	3,158	23.9	1,764	13.4	124	39
MIDDLE RING	Lozells	32,600	628	19.3	430	13.2	29	46
	Aston	29,500	574	19.5	341	11.6	16	28
	Gravelly Hill	30,300	523	17.3	349	11.5	11	21
	Washwood Heath	33,000	495	15.0	341	10.3	15	30
	Saltley	32,100	553	17.2	360	11.2	15	27
	Small Heath	31,600	638	20.2	356	11.3	9	14
	Sparkbrook	26,300	584	22.2	327	12.4	21	36
	Balsall Heath	26,500	498	18.8	285	10.8	15	30
	Edgbaston	26,500	317	12.0	347	13.1	6	19
	Rotton Park	25,200	380	15.1	295	11.7	11	29
	All Saints	26,300	451	17.1	329	12.5	18	40
	Soho	26,400	440	16.7	365	13.8	20	45
	Totals and Average Rates of Middle Ring Wards	346,300	6,081	17.6	4,125	11.9	186	31
OUTER RING	Stechford	40,100	655	16.3	356	8.9	22	34
	Sheldon	35,500	723	20.4	216	6.1	22	30
	Yardley	26,100	380	14.6	260	10.0	3	8
	Acocks Green	23,300	394	16.9	257	11.0	10	25
	Fox Hollies	24,300	408	16.8	237	9.7	10	25
	Sparkhill	27,300	448	16.4	327	12.0	17	38
	Hall Green	27,000	342	12.7	284	10.5	12	35
	Springfield	27,400	363	13.2	264	9.6	6	17
	Brandwood	35,000	489	14.0	309	8.8	10	20
	Moseley and King's Heath	30,300	470	15.5	398	13.1	8	17
	Selly Oak	33,100	445	13.4	433	13.1	14	31
	King's Norton	26,500	347	13.1	272	10.3	5	14
	Northfield	29,300	406	13.9	220	7.5	12	30
	Weoley	26,000	396	15.2	204	7.8	12	30
	Harborne	33,200	439	13.2	324	9.8	2	5
	Sandwell	24,900	336	13.5	259	10.4	12	36
	Handsworth	27,600	400	14.5	367	13.3	18	45
	Perry Barr	39,300	533	13.6	239	6.1	18	34
	Kingstanding	37,900	641	16.9	252	6.6	18	28
	Stockland Green	33,000	494	15.0	327	9.9	9	18
	Erdington	32,700	472	14.4	313	9.6	15	32
	Totals and Average Rates of Outer Ring Wards	639,800	9,581	15.0	6,118	9.6	255	27
	Ward of Domicile not known		13		142		3	
	Totals and Average Rates for Whole City	1,117,900	18,833	16.8	12,149	10.9	568	30

TABLE III.

CRUDE RATES

Year	BIRTH RATE			STILLBIRTH RATE per 1,000 total births			INFANT MORT. RATE			DEATH RATE		
	B'ham	Great Towns*	Eng. and Wales	B'ham	Great Towns*	Eng. and Wales	B'ham	Great Towns*	Eng. and Wales	B'ham	Great Towns*	Eng. and Wales
1901	31·4		27·2 <i>is mean for 1901— 1910</i>	—	—	—	176		151	17·5		16
1911	26·1		24·4	—	—	—	150		130	15·0		14
1921	24·1		22·4	35			83		83	11·3		11
1931	16·9		15·8	39		41	71		66	11·7		12
1936	15·8		14·8	35		40	62		59	11·3		12
1941	16·8	14·7	13·9	29		35	69	71	60	13·2	14·9	13
1942	19·3	17·3	15·6	28		33	56	59	51	11·8	13·3	12
1943	20·9	18·6	16·2	27		30	55	58	49	12·1	14·2	13
1944	22·8	20·3	17·7	25		28	42	52	45	11·3	13·7	12
1945	20·2	19·1	15·9	25		28	49	54	46	11·2	13·5	13
1946	22·5	22·2	19·2	25		27	40	46	43	11·3	12·7	13
1947	22·2	23·3	20·5	24		24	41	47	41	11·1	13·0	13
1948	19·5	20·0	17·9	22		23	32	39	34	9·8	11·6	10
1949	18·1	18·7	16·9	22		23	31	37	32	10·7	12·5	18
1950	16·8	17·6	15·8	23		23	30	34	30	10·9	12·3	16

* 126 County Boroughs and Great Towns, including London.

YEAR	Population Estimated to middle of each year	Birth-rate	Death-rate	Infant Mortality rate per 1,000 Births	Enteric Fever	Smallpox	Measles	Scarlet Fever	Whooping Cough	Dysphtheria	Influenza	Tuberculosis		Cancer	Diseases of Nervous System	Diseases of Circulatory System	Diseases of Respiratory System	Diseases of Digestive System	Diseases of Genito-Urinary System	Suicides	Other Violence	Congenital Debility, Malformations, etc.	Dysentery and Enteritis (under 2)	Furuncul Fever	Other Accidents of Childhood
												Respiratory	Other Forms												
1912	850,947	26.1	14.1	111	.04	—	.67	.18	.39	.12	.12	1.28	.24	.98	1.36	1.33	.68	.98	.50	.07	.45	48.4	10.4	1.22	.60
1913	859,644	27.3	14.9	129	.02	—	.46	.20	.19	.19	.13	1.28	.24	1.02	1.32	1.53	.68	.98	.56	.11	.45	48.4	10.4	1.22	.60
1914	862,534	26.4	14.8	122	.02	—	.35	.17	.35	.30	.16	1.28	.24	1.02	1.32	1.53	.68	.98	.56	.11	.45	48.4	10.4	1.22	.60
1915	891,234	23.8	14.4	118	.01	.00	.47	.07	.15	.15	.16	1.28	.27	1.00	1.36	1.82	.92	.98	.05	.05	.05	45.6	27.3	1.62	1.70
Average	23.9	14.6	126	.03	.04	.00	.43	.14	.25	.18	.13	1.22	.29	.94	1.36	1.80	.92	.98	.05	.05	.05	45.6	27.3	1.56	1.86
1916	895,678	23.1	13.5	104	.01	—	.11	.03	.12	.13	.16	1.24	.24	1.00	1.23	1.95	.60	1.07	.45	.05	.05	39.5	12.4	1.50	1.93
1917	900,000	19.7	12.6	101	.01	—	.37	.01	.14	.13	1.11	1.30	.25	1.02	1.23	1.92	.60	.98	.44	.05	.38	43.0	12.4	1.50	1.93
1918	870,000	19.4	13.0	99	.01	—	.08	.01	.32	.14	2.50	1.35	.25	1.02	1.18	1.76	.60	.98	.44	.05	.38	43.0	12.4	1.50	1.93
1919	910,000	20.9	13.0	84	.01	—	.20	.05	.06	.14	1.15	1.10	.16	1.01	1.07	1.75	.60	.98	.44	.05	.38	43.0	12.4	1.50	1.93
1920	910,000	27.6	12.6	83	.01	—	.16	.12	.22	.22	.46	.93	.12	1.06	1.75	2.26	.60	.98	.44	.05	.38	43.0	12.4	1.50	1.93
Average	22.1	13.4	94	.01	.01	.00	.18	.04	.23	.16	.08	1.18	.22	1.01	1.75	2.54	.60	.98	.08	.35	.35	35.2	9.5	2.03	1.56
1921	919,683	24.1	11.3	83	.01	—	.17	.04	.10	.13	.15	.97	.16	1.12	1.98	2.02	.33	.33	.10	.26	.38	39.6	16.5	1.57	1.49
1922	927,844	21.5	12.1	76	.00	—	.09	.04	.05	.10	.48	.97	.16	1.15	1.04	1.85	.60	.98	.10	.26	.38	39.6	16.5	1.57	1.49
1923	936,079	20.4	11.0	72	.00	—	.20	.04	.05	.15	.23	.92	.16	1.17	1.00	1.71	.98	.60	.37	.12	.35	37.3	10.9	1.76	1.76
1924	944,386	19.2	11.6	83	.01	—	.08	.02	.19	.10	.39	.97	.13	1.30	1.00	.91	1.21	.70	.37	.10	.31	37.2	9.9	2.01	1.90
1925	952,766	18.8	11.7	78	.00	—	.11	.02	.23	.10	.39	.98	.16	1.27	1.00	1.21	.97	.73	.37	.11	.33	35.0	11.3	1.96	1.93
Average	20.9	11.5	73	.00	.00	.00	.08	.01	.19	.12	.34	.96	.15	1.21	1.00	1.85	1.20	.74	.38	.11	.30	35.0	11.3	1.64	1.85
1926	961,222	18.7	11.3	73	.00	—	.08	.01	.17	.08	.41	.89	.17	1.36	1.07	2.12	1.88	.73	.40	.12	.32	32.2	11.2	2.23	1.94
1927	969,752	17.8	11.8	75	.00	.00	.13	.01	.17	.07	.13	.86	.13	1.35	1.04	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1928	976,500	17.6	10.9	65	.00	—	.04	.01	.13	.09	.13	.86	.13	1.35	1.04	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1929	981,000	17.1	13.5	79	.00	—	.20	.01	.13	.09	1.09	.94	.15	1.34	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1930	982,000	17.7	10.8	60	.01	—	.06	.02	.11	.09	.13	.90	.13	1.43	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
Average	17.8	11.6	70	.00	.00	.00	.10	.01	.12	.09	.41	.91	.13	1.35	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1931	1,011,300	16.9	11.7	71	.00	—	.18	.01	.09	.06	.27	.92	.14	1.46	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1932	1,017,500	16.3	11.3	67	.00	—	.05	.01	.13	.03	.36	.83	.10	1.45	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1933	1,023,500	14.7	11.0	66	.00	—	.08	.02	.03	.03	.44	.85	.11	1.43	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1934	1,028,000	15.3	11.0	66	.00	—	.02	.01	.11	.08	.18	.71	.08	1.43	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1935	1,033,000	15.4	10.9	64	.01	—	.05	.01	.06	.08	.15	.71	.08	1.43	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
Average	15.7	11.2	67	.00	.00	.00	.08	.01	.08	.06	.23	.80	.10	1.46	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1936	1,038,000	15.8	11.3	62	.00	—	.04	.01	.10	.06	.13	.71	.07	1.57	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1937	1,042,000	16.3	11.7	60	.00	—	.07	.01	.03	.08	.40	.72	.08	1.62	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1938	1,048,000	16.6	10.9	61	.00	—	.01	.01	.07	.15	.70	.08	.15	1.62	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1939	1,055,000	16.9	11.4	60	.00	—	.02	.00	.05	.05	.16	.77	.07	1.65	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1940	1,020,000	16.9	14.3	70	.00	—	.01	.01	.07	.05	.22	.77	.07	1.65	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
Average	16.4	11.9	63	.00	.00	.00	.03	.01	.06	.06	.21	.73	.07	1.59	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1941	950,000	16.8	13.2	69	.01	—	.00	.00	.12	.09	.15	.81	.09	1.77	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1942	965,000	19.3	11.8	55	.00	—	.02	.00	.06	.04	.34	.71	.07	1.83	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1943	965,000	20.9	12.1	55	.00	—	.00	.00	.06	.04	.34	.71	.07	1.83	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1944	990,000	22.8	11.3	42	.00	—	.00	.00	.03	.02	.11	.70	.09	1.75	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1945	990,000	19.9	11.2	50	.00	—	.00	.00	.03	.02	.06	.68	.07	1.84	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
Average	19.9	11.9	54	.00	.00	.00	.02	.00	.06	.04	.15	.73	.08	1.78	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1946	1,017,100	22.5	11.3	40	.00	—	.01	.00	.03	.01	.11	.61	.07	1.90	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1947	1,076,300	22.2	11.1	41	.00	—	.02	.00	.03	.00	.08	.64	.05	1.83	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1948	1,096,100	22.5	9.8	32	.00	—	.01	.00	.03	.00	.03	.59	.04	1.10	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1949	1,106,800	18.1	10.7	31	.00	—	.01	.00	.02	.00	.19	.54	.05	1.75	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
1950	1,117,900	16.8	10.9	30	.00	—	.01	.00	.02	.00	.07	.43	.03	1.88	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14
Average	19.8	10.8	35	.00	.00	.00	.01	.00	.03	.00	.10	.56	.05	1.84	1.00	2.28	1.89	.70	.41	.13	.36	35.7	11.2	1.45	2.14

*Exclusive of General Paralysis

†Registrar General's Estimate.

TABLE V.

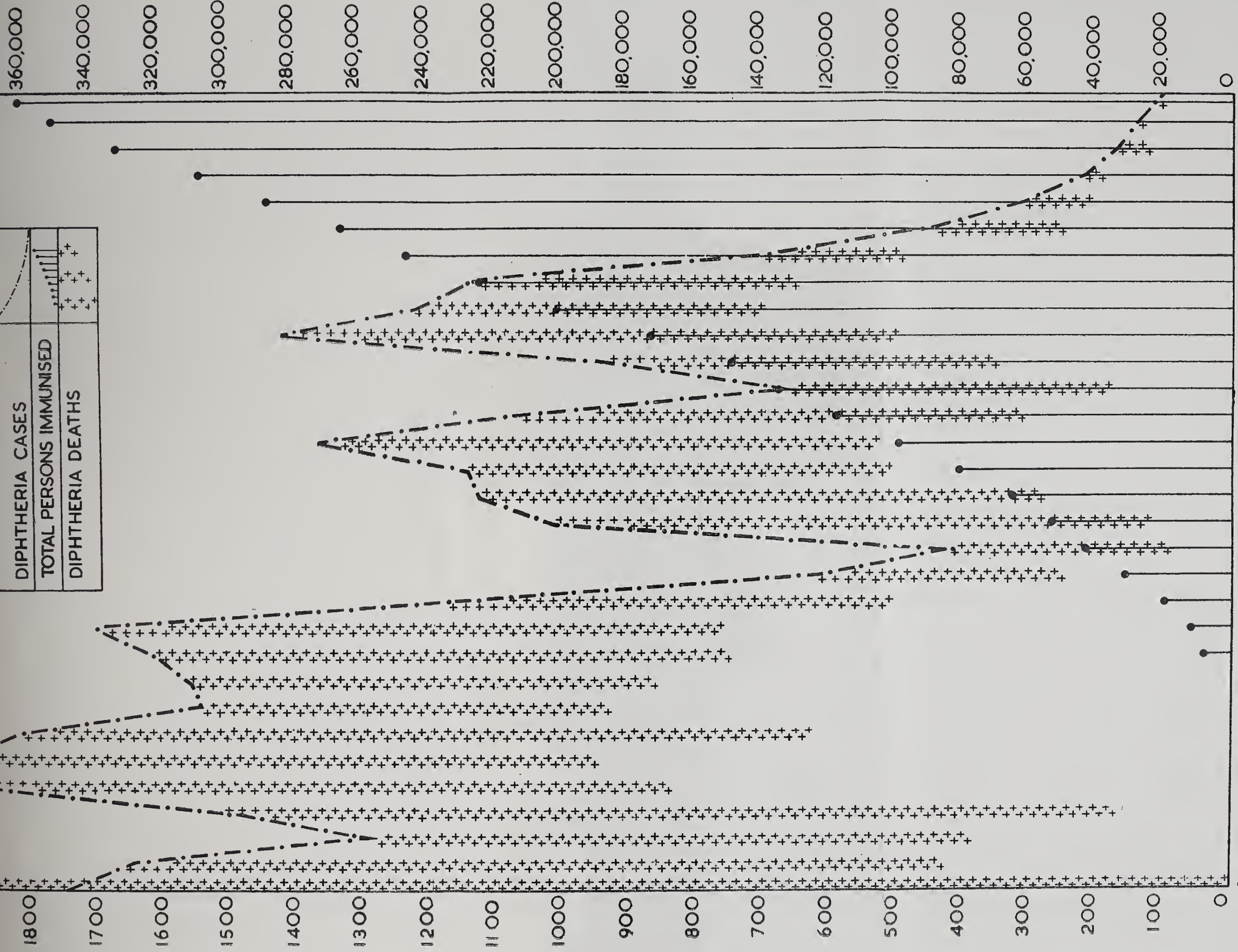
TABLE V.

48

DIPHTHERIA CASES

INCREASE IN THE SIZE OF IMMUNISED POPULATION
FALL IN NUMBER OF DIPHTHERIA CASES & DEATHS

KEY		
DIPHTHERIA CASES		
TOTAL PERSONS IMMUNISED		
DIPHTHERIA DEATHS		



1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950

GENERAL EPIDEMIOLOGY

Diphtheria

For the second year in succession, no Birmingham child has died from diphtheria and for the fourth year in succession no child of pre-school age has died from this disease. 310 notifications of diphtheria were received during 1950, but only 105 were confirmed as true cases after further investigations had been made. One death from diphtheria occurred—a woman of 54 years of age who had never been immunised.

Diphtheria Immunisation

The steady rise in the total numbers of primary immunisations since 1924 is shown in the accompanying graph and coincident with this rise is the steady fall in the numbers of notifications and deaths.

Birmingham experienced a relatively heavy incidence of anterior poliomyelitis during 1950 and the Ministry of Health advised that the immunisation scheme should be suspended, as reports from elsewhere had suggested that there might be a relation between the site of the immunisation and the development of paralysis in children becoming infected with poliomyelitis. Although there was no evidence from Birmingham to support this view, immunisation was suspended between 29th June, 1950 and 17th November, 1950, by which time the incidence of poliomyelitis had considerably abated.

General Practitioners were informed of the suspension of immunisation and there was consequently a heavy drop in the year's totals of patients immunised.

In order to give a more informative picture of the work carried out during the year, the figures for the first and second halves of the year are shown separately.

PRIMARY IMMUNISATIONS, JANUARY 1ST, 1950 TO JUNE 30TH, 1950.

Children under 5 years of age immunised by	{	Public Health Dept. Staff.		4,941	{	Total under 5 years of age 8,391	{	Total 0-15 yrs. of age 9,501
		General Practitioners	Diphtheria only.	3,124				
			Pertussis and Diphtheria.	326				
Children 5-15 yrs. of age immunised by	{	Public Health Dept. Staff		1,038	{	Total 5-15 yrs. of age 1,110		
		General Practitioners	Diphtheria only.	69				
			Pertussis and					
			Diphtheria.	3				

Adolescents and adults who received primary immunisation, 12.

PRIMARY IMMUNISATION, JULY 1ST, 1950 TO DECEMBER 31ST, 1950.

Children under 5 years of age immunised by	{	Public Health Dept. Staff (17th Nov. to 31st Dec.)		704	Total under 5 yrs. of age 1,192
		General Practitioners	Diphtheria only.	465	
		.	Pertussis and Diphtheria.	23	
Children 5-15 yrs. of age immunised by	{	Public Health Dept. Staff (17th Nov. to 31st Dec.)		98	Total 5-15 yrs. of age 106
		General Practitioners	Diphtheria only.	6	
			Pertussis and Diphtheria.	2	
					Total 0-15 yrs. of age 1,298

Adolescents and adults who received primary immunisation 4

Total completed primary immunisations for the year 1950 (all ages) 10,815

In the past approximately 20,000 primary immunisations have been carried out in a full year.

Supplementary (" Boosting ") Injections

	Children		Over	Totals
	0-5 years	5-15 years	15 years	
Injections given by Public Health Department in 1950	2,664	4,401	17	7,082
Injections given by General Practitioners in 1950	431	190	9	630
TOTALS	3,095	4,591	26	7,712

The age of the child, for the purposes of the above record, is taken as at 31st December, 1950.

Regular visits were paid to welfare centres, day and residential nurseries and primary and special schools to carry out diphtheria immunisation.

Naturally the suspension of immunisation is reflected in a fall in the percentage of the immunised among the child population, the children born towards the end of 1949 and during the whole of 1950 being virtually untreated at the end of 1950 as they were not old enough by the end of June to commence the treatment.

From the Health Visitors' records the percentage of children immunised between 8 months and 5 years of age is 65% and for all children under 5 years of age is 57·2% as against 74·7% and 64·3% respectively in 1949. These estimates are based on the record cards and are corrected as far as possible for deaths and migrations.

The Registrar-General gives the estimated mid-year child population as 101,900 children under 5 years and 161,000 aged 5—15 years. Based on these figures and making allowance for deaths and movement of children into and out of the City, the percentages of children immunised in the age groups are shown below.

	1950
0—5 years of age	58·2%
5—15 years of age	98%
0—15 years of age	83%

The increasing volume of immunisation carried out by General Medical Practitioners is shown by the following figures.

		1948		1949		1950	
		Jan.—June	July—Dec.	Jan.—June	July—Dec.	Jan.—June	July—Dec.
No. of primary immunisations	By Public Health Dept. Staff	10,076	9,205	7,518	6,567	5,979	802
	By General Practitioners	1,272	2,492	2,702	3,004	3,522	496
	TOTAL	11,348	11,697	10,220	9,571	9,501	1,298
Percentage of total carried out by General Practitioners		11.2%	21.3%	26.4%	31.3%	37.0%	38.2%

The age distribution of the confirmed cases of diphtheria in 1950 is given below.

Age at time of illness	0—1 year	1—2	3—4	5—9	10—14	15—19	20—24	25—34	35—44	45—54	55—64	65 up	Total
Non-Immunised Cases	5	18	10	13	5	7	4	11	3	1	1		78
Primary Immunisation only		2	2	4	11	2	1						22
Primary and Supplementary				5									5
TOTALS	5	20	12	22	16	9	5	11	3	1	1		105

The majority of cases arise in persons under the age of 20 years. 17% of Birmingham children aged 0—15 years had never been immunised and among these there were 51 diphtheria cases. Among the 83% of immunised children in this age group only 24 developed diphtheria. Immunisation has, therefore, diminished about 11 times the chances of developing diphtheria. These figures do not, however, show the important additional fact that diphtheria in the immunised is usually a far less serious disease. If the further precaution is taken of giving a child of 5 years old a single supplementary injection, the chances of it contracting diphtheria become extremely minute. It has been advocated that a second supplementary dose should be given when approaching 10 years of age to afford protection during the period from 10 years onwards. Our figures seem to show that at present such an injection is not necessary, as no cases arose in the age group 10 years and over who had been primarily immunised and then received the usual single supplementary injection at the age of 5 years.

Encephalitis

The Public Health (Acute Poliomyelitis, Acute Encephalitis and Meningococcal Infection) Regulations 1949, came into operation on 1st January, 1950. They introduced nomenclature consistent with the international standard classification of diseases and slightly extended the scope of clinical conditions notifiable under the head of acute encephalitis.

During 1950, 11 cases were notified as suffering from acute encephalitis, but 7 notifications were subsequently revised leaving 3 cases confirmed as Infective Encephalitis and one as Post-Infectious Encephalitis. This last arose a week after onset of measles when the child had apparently almost recovered.

Meningococcal Infection

There were 232 cases notified as cerebro-spinal fever during the year. In 150 cases the diagnosis was afterwards revised, leaving 82 confirmed cases of this disease. Amongst the revisions were 44 to poliomyelitis.

<i>Age Distribution</i>	<i>Cases</i>
Under 1 year	5
1 and 2 years	18
3 and 4 years	11
5 and under 10 years	15
10 and under 15 years.....	11
15 and under 20 years.....	2
20 and under 25 years.....	8
25 and under 35 years.....	5
35 and under 45 years.....	3
45 years upwards	4
	—
	82
	—

There were 14 deaths, the case mortality being therefore 17·1%.

Undulant Fever

No case of this disease came to the notice of the Department during the year.

In this connection it should be noted that the total proportion of raw milk retailed in the City has, for a number of years, been not more than about 2%.

Enteric Fever

There were 23 notifications of enteric fever but in only 9 of the cases was the diagnosis confirmed. There were no deaths.

Five of the confirmed cases had typhoid fever ; 4 were almost certainly infected whilst away from Birmingham on holiday, but it is not known how the fifth came to have the disease.

Four cases were confirmed as paratyphoid fever ; one was a mental hospital patient. The sources of her infection and that of one other patient were not discovered.

The remaining two cases of paratyphoid were sisters living in the Handsworth district of Birmingham. As the dates of onset of their illnesses were 9th December, 1950 and 25th December, 1950, the second case was regarded as having been infected by her sister. Over a period of three weeks it was discovered that there were also 6 cases of paratyphoid fever in the area beyond the north west boundary of Birmingham, Smethwick (3 cases), Oldbury (1 case), West Bromwich (1 case), and Aldridge (1 case), being affected. The ages of the patients and the dates of onset of illness were as follows :—

16 years (9.12.50), 10 years (10.12.50), 13 years (4 or 7.12.50),
6 years (11.12.50), 5 years (6.12.50), 3½ years (22.12.50).

Small child (16.12.50).

Enquiries were made with particular reference to a food distributed over the area affected, and it was found that 6 patients had certainly eaten cream cakes manufactured by a Birmingham firm and the seventh case almost certainly had eaten such cakes. The bakery concerned is regarded as a very satisfactory one. Workpeople employed there at the relevant dates were interviewed at the factory and those who had left were traced. Negative results were obtained from a specimen of faeces from each one, but one woman who had since ceased work gave the following result of a Widal Test.

Salm. Typhi " O " 1/50

Salm. Paratyphi B " O " 1/125.

Two specimens of faeces and one of urine from her all gave negative results.

At this point she refused to co-operate further, and there was no means of compelling her to do so. No definite conclusion as to the source of the infection was therefore possible.

Salm. Paratyphi B Phage Type I was isolated from all the 8 cases discovered in this outbreak.

Typhoid Fever has now become an uncommon disease. The following are the average yearly number of cases of typhoid in each five year period in Birmingham since the beginning of the century.

1901— 5	.....	544
1906—10	.....	242
1911—15	.....	90
1916—20	.....	22
1921—25	.....	30
1926—30	.....	41
1931—35	.....	42
1936—40	.....	27
1941—45	.....	35
1946—50	.....	10

The great improvement in sanitation and personal cleanliness has been largely responsible for this very satisfactory progress, but of recent years the provision of a service for bacteriophage typing of the organisms at the Public Health Laboratory, Colindale, has provided an important weapon for the investigation of outbreaks. Using the bacteriophage technique a couple of dozen different types of Salmonella typhi have been identified and the discovery that a group of patients and a carrier are all infected with the same phage type is valuable evidence that there is a relationship between them.

The year 1950 is notable for the introduction of Chloromycetin in the treatment of typhoid fever. This substance is remarkably effective for treating the acute case, but the results of administering it to the faecal carriers have been disappointing.

Smallpox

There were no cases of smallpox in the City during the year, but surveillance of persons associated with the outbreak of smallpox in Glasgow was carried out.

Vaccination

During 1950 the following numbers were vaccinated.

Primary vaccination

Under 1 year	.....	6,797
1 year and over	.....	1,143
Re-vaccinated	.....	1,725

The table below gives the yearly totals of children under 1 year of age who have been vaccinated during the past few years. In considering this matter, however, it should be borne in mind that considerable fluctuation in the birth rate has occurred during this period and a proper appraisal of the position is gained only by expressing the number of children vaccinated as a percentage of the babies born alive in the same year. When this is done it is seen that the percentage vaccinated gradually rose to a peak in 1947 and has since declined to a point a little below where it was in 1940. It will be recalled that vaccination ceased to be compulsory on July 5th, 1948.

Year	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Total vaccinated under 1 year ...	6,850	6,583	6,481	8,511	9,162	11,090	10,151	10,302	12,808	8,954	6,993	6,797
Vaccinations as % of live births ...	39.2	38.2	40.6	45.6	45.4	49.2	50.7	44.9*	53.5	41.9	34.9*	36.1

*Corresponding figures for the whole country were 41% in 1946 and 28% in 1949.

Measles

There were 10,575 notifications of measles and 10 cases died at the following ages :—

0—6 mths. 1, 6 mths.—1 yr. 2, 1—2 yrs. 3, 2—4 yrs. 4.

The age grouping of the cases was as follows :

Under 1 yr., 345 ; 1 and 2 years, 2,866 ; 3 and 4 years, 3,307 ; 5—9 years, inc., 3,837 ; 10—14 years, inc., 126 ; 15 years and over, 94.

The number of cases in each year during the past 10 years has never fallen below 4,000 and in only 2 years did it fall below 7,000. The incidence during the past 4 years has remained remarkably constant and the biennial peaks of incidence, at one time very usual, are now disappearing. With the number of births in the region of 20,100 per year it seems that about half the children are being clinically infected.

Owing to reports from elsewhere of jaundice following the use of adult serum for contacts of measles, only 11 cases were so treated during the year. Ten of these developed mild attacks of measles but nothing else.

Scarlet Fever

The number of cases of scarlet fever fell from 1,866 in 1949 to 1,568 in 1950. There were no deaths, the illness in most patients being very mild.

Malaria

There were 8 cases notified to the department, 2 of which were "induced." The remaining 6 cases had contracted the disease abroad.

Dysentery

There were 244 cases notified during 1950, the notifications for the four quarters separately being 37, 39, 40 and 128. In only 2 years of the past decade, 1945 and 1946, was this figure exceeded, the notifications then being 435 and 333. 216 of the 244 notifications of 1950 were confirmed.

Dysentery, being usually very mild, is probably the most under-notified of all the notifiable diseases. The great majority of notifications refer to children, particularly those of pre-school age. It spreads readily in nurseries, nursery schools and even in families with a high level of personal hygiene. The organism can readily be isolated from the skin of the thighs of cases and is found occasionally on swabs of W.C. seats, hands, crockery, etc. In the day nurseries, however, the spread via crockery has been eliminated by sterilisation after washing it.

A review of the notifications in Birmingham over the past 10 years shows that dysentery has been continuously present throughout the whole period, and that its incidence was spread fairly evenly over the four quarters of the year.

Whooping Cough

During the year 6,172 cases were notified. There were 17 deaths. The age distribution of cases and deaths is shown below.

	<i>Under 6 mths.</i>	<i>6 mths. to 1 yr</i>	<i>1 & 2</i>	<i>3 & 4</i>	<i>5—9</i>	<i>10—14</i>	<i>15—19</i>	<i>20—24</i>	<i>25—34</i>	<i>35—44</i>	<i>45—54</i>	<i>55—64</i>	<i>65—74</i>	<i>75 up</i>
<i>Notific ations</i>	238	271	1,805	1,906	1,846	43	5	9	16	15	8	4	4	2
<i>Deaths durin g 1950</i>	4	8	3	1	—	—	—	—	—	—	1	—	—	—

Although during the present century the deaths from infectious diseases have been enormously reduced, the reduction as regards whooping cough is markedly less than it has been with other diseases and whooping cough now causes more deaths than do scarlet fever, measles, diphtheria and meningococcal infection together.

YEARLY AVERAGE NUMBER OF DEATHS FROM :

	<i>Scarlet Fever</i>	<i>Measles</i>	<i>Diphtheria</i>	<i>Mening- ococcal Infection</i>	<i>Whooping Cough</i>
1901—05	172	279	159	Not notifiable until 1912	316
1946—50	1	12	4	8	26

Cases of whooping cough vary greatly in severity but the younger the child the more dangerous is the disease. On the whole the severity has diminished of recent years, but the marked differences in severity among children of similar age and physique make assessment of prophylaxis and treatment difficult. Prophylactic injections are being given by a few Birmingham practitioners in conjunction with diphtheria immunisation and the following is a record of the small amount of work carried out :

1948	0—5 yrs.	50 immunised	5—15 yrs.	Nil immunised
1949	0—5 yrs.	417	5—15 yrs.	3
1950	0—5 yrs.	349	5—15 yrs.	5

Whooping cough is continually present in the City, though its incidence varies considerably. The incidence ranged from 183 notifications in the four weeks ending 28th October to 799 in the four weeks ending 13th May.

Food Poisoning

The following information is set out in the form desired by the Ministry of Health. The figures in brackets refer to the number of cases notified by doctors and are included in the totals.

FOOD POISONING NOTIFICATIONS (CORRECTED) RETURNED TO REGISTRAR-GENERAL

<i>1st quarter.</i>	<i>2nd quarter.</i>	<i>3rd quarter.</i>	<i>4th quarter.</i>	<i>Total.</i>
12 (12)	98 (15)	28 (25)	25 (20)	163 (72)

Outbreaks due to Identified Agents :

Total outbreaks 3	Total cases 7 (5)
-----------------	---------	-------------	-------------

Outbreaks due to :

(a) Chemical Poisons	.....	.....	.....	.....	.....	.....	—
(b) Salmonella Organisms	.....	.....	.....	.....	.....	.....	1
(c) Staphylococci (including toxin)	.....	.....	.....	.....	.....	.....	2
(d) Cl botulinum	.....	.....	.....	.....	.....	.....	—
(e) Other Bacteria	.....	.....	.....	.....	.....	.....	—

Outbreaks of Undiscovered Cause.

Total outbreaks	6	Total cases	97 (15)
-----------------	---	-------------	---------

Single Cases

<i>Agent Identified</i>	<i>Unknown Cause</i>	<i>Total</i>
3	56 (50)	59 (52)

It will be noted that cases arose even in the colder months of the year, but this type of illness is commoner during the summer months. Official notification was received in respect of less than half the cases, the others being discovered during the course of enquiries. This suggests that a large amount of illness due to food poisoning is never counted in the official figures.

In only 10 cases was the cause of the illness ascertained, investigation often being greatly hampered by the lapse of time which occurs between the onset of the illness and the matter being brought to the attention of the department. Immediate notification by telephone would give a greatly increased chance of the investigations being successful,

The salmonella outbreak arose in all three members of a family who had consumed lightly boiled duck eggs. One of the single cases also occurred after a man and wife had eaten duck eggs. The illness was fatal after 8 days' duration.

About 80 of the 120 persons who consumed ice cream at a dinner became ill. The ice cream had been made improperly and under bad conditions, was of Grade IV and gave a heavy growth of anthracoid bacilli and enterococci.

Poliomyelitis

The number of cases of poliomyelitis in the City has been rising steadily and in 1950 442 diagnoses were confirmed out of a total of 618 notifications. The following numbers of actual cases have arisen each year over the past 10 years :—8, 12, 10, 4, 23, 25, 166, 42, 68, 442. During the past few years it has frequently occurred that certain areas of the country have suffered a high incidence of the disease, and in 1950 Birmingham was such an area. In the tropics the incidence of poliomyelitis does not vary with the seasons, but it has been suggested that polio epidemics in this country begin when the mean weekly temperature reaches 60°F. Such was not quite the experience in Birmingham where a rise in notifications occurred appreciably earlier than it did in the other great towns, or in the country as a whole, and here also, as the accompanying graph shows, the incidence was a good deal heavier. Over the last 10 years, however, our experience has been that, although most cases occurred in the warmer months, occasional cases have arisen during the winter, and latterly hardly any month of the whole year has been entirely free.

The 442 confirmed cases were distributed among the age groups as follows :

0—5 yrs.	178	5—15 yrs.	177	15+ yrs.	87
----------	-----	-----------	-----	----------	----

giving an incidence in the three age groups of :

0—5 yrs.	40.3%	5—15 yrs.	40.0%	15+ yrs.	19.7%
----------	-------	-----------	-------	----------	-------

of the total cases.

Ten years ago there were twice as many cases in the 0—5 year group as in the 5—10 year group, and four times as many as in the adult group. We find now that the proportion of cases occurring in older persons is rising, and this experience is common throughout the country.

57 of the 442 cases died during the year. The case mortality rate was 13.1% as a girl of 17 years who died in February, 1951, is not included in the 57 deaths. The rate for 1949 was 8.8%.

The distribution of cases was general throughout the City, and investigators again noticed the striking association with the clean homes of the artisans.

In four instances there were two cases in the same household. The details are as follows :

1. Two sisters aged 7 and 9 years old. Both non-paralytic.
Dates of onset 12.6.50 and 15.6.50
2. Two brothers aged 4 (paralytic) and 5 (non-paralytic).
Dates of onset (?) 13.7.50 and (?) 14.7.50
3. Mother (paralytic) and son aged 6½ years (non-paralytic).
Dates of onset 1.9.50 and 27.8.50
4. Mother and daughter aged 3 years (both paralytic).
Dates of onset 22.10.50 and 16.10.50

In accordance with the Acute Poliomyelitis, Acute Encephalitis and Meningococcal Infection Regulations, 1949, it became obligatory on and after January 1st, 1950, to differentiate paralytic and non-paralytic cases when notifying poliomyelitis.

Among the 442 confirmed cases of all ages 111 (25%) were of the mild non-paralytic type distributed among the age groups as follows :

0—5 yrs.	41 (23%)	5—15 yrs.	58 (33%)	15+ yrs.	12 (14%)
----------	----------	-----------	----------	----------	----------

the figures in brackets being the percentage of non-paralytic cases to total cases in each group.

Seventeen of the confirmed cases had encephalitis and their age distribution was as follows, the figures in brackets represent deaths.

0—5 yrs.	13 (9)	5—15 yrs.	2 (2)	15+ yrs.	2 (2)
----------	--------	-----------	-------	----------	-------

The very high mortality of the encephalitic form of poliomyelitis was investigated in relation to the development of paralysis of muscles in these cases. 8 cases who died had such paralysis and 5 had none. Of the four infants who recovered only one at no time had muscular paralysis. This case and two others recovered completely, and one further case had a small amount of residual muscular paralysis.

The aftermath of the 1950 epidemic was reviewed at the end of February, 1951, when enquiries were made as to the condition of the survivors. The incidence had been heaviest in the 0—5 year group where 10% of the patients died. Half the deaths were accounted for by encephalitic cases.

It is interesting to note the high incidence among infants in spite of their having far fewer contacts than do the children who attend school. The outcome of the illness was, however, much the same in the two groups of children.

In adults, although the incidence was low, the severity of the cases was great and 31% died. There was a much smaller proportion of non-paralytic cases and of cases which, though paralysed, recovered completely. In February, 1951, only 49% of adults had resumed work as compared with 72% of children who had resumed school.

The following is a summary of the age incidence.

MALES							
0—5	5—10	10—15	15—20	20—25	25—30	30—35	35+
PARALYTIC							
64	43	17	8	10	6	8	6
6 deaths	4 deaths	1 death		3 deaths	3 deaths	4 deaths	4 deaths
NON-PARALYTIC							
27	31	11	2	—	2	1	2
2 deaths							
ENCEPHALITIS							
With paralysis of muscles							
4	—	1	1	—	—	—	1
3 deaths		1 death	1 death				1 death
Without paralysis of muscles							
4	—	—	—	—	—	—	—
4 deaths							

FEMALES

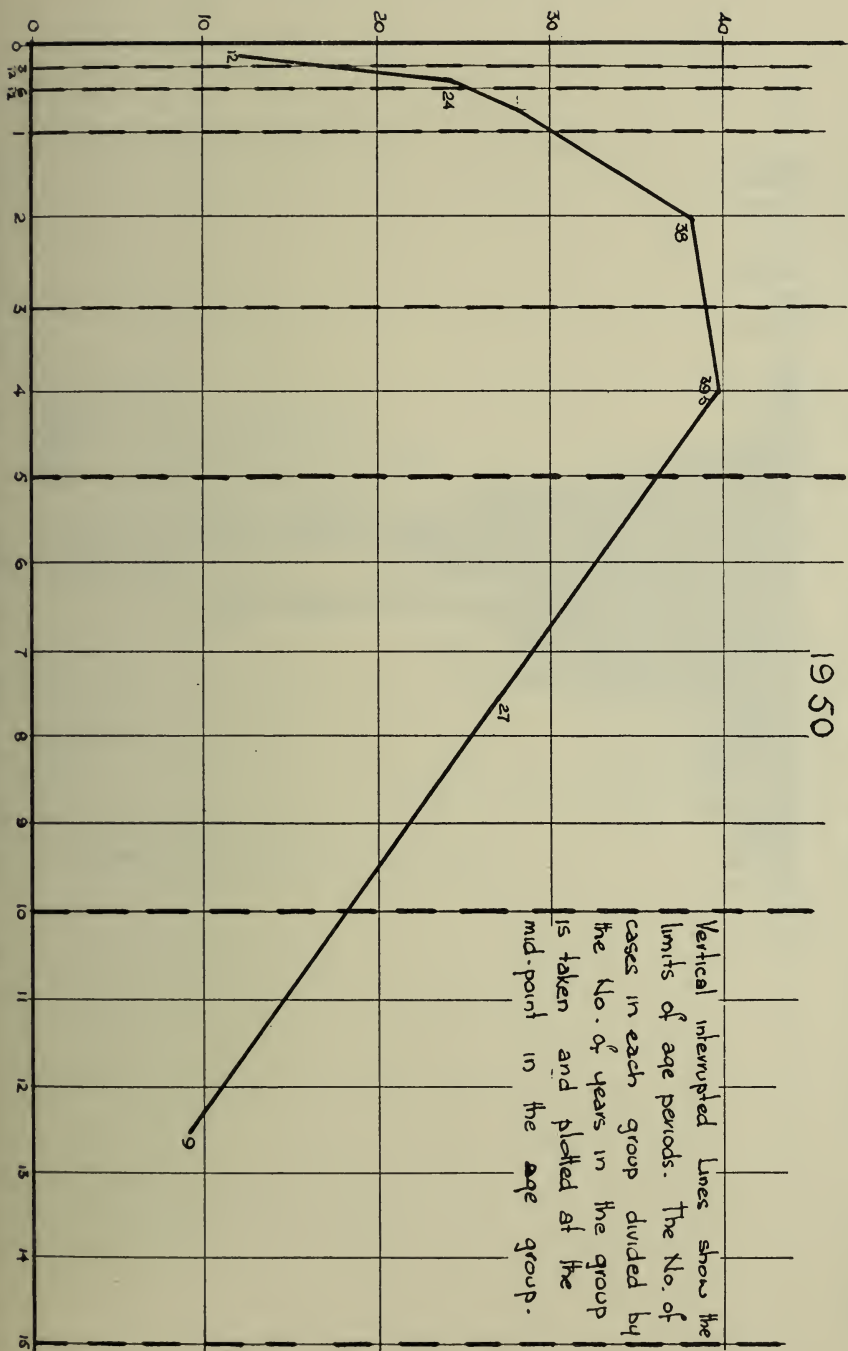
	0—5	5—10	10—15	15—20	20—25	25—30	30—35	35+
PARALYTIC								
	58	46	10	4	8	14	3	6
	1 death	5 deaths		1 death	2 deaths	6 deaths		1 death
NON-PARALYTIC								
	16	12	5	1	1	—	1	2
			1 death					
ENCEPHALITIS								
With paralysis of muscles								
	3	1	—	—	—	—	—	—
	1 death	1 death						
Without paralysis of muscles								
	2	—	—	—	—	—	—	—
	1 death							

It should be noted that three deaths occurred in cases described as non-paralytic poliomyelitis. Here death occurred very soon after the onset of the illness and before any significant degree of paralysis of any muscle could be detected.

AGE DISTRIBUTION OF POLIOMYELITIS AMONG BIRMINGHAM CHILDREN

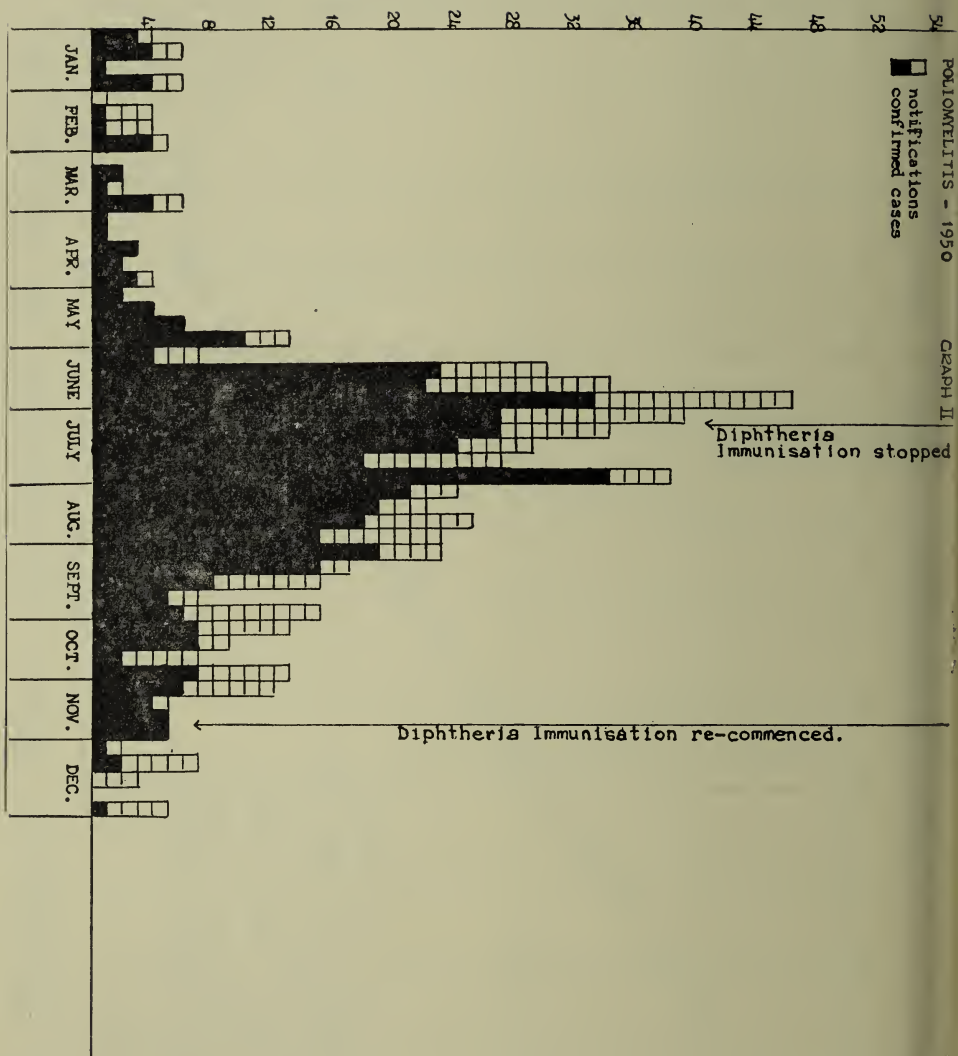
1950

No. OF CASES AT VARIOUS AGES



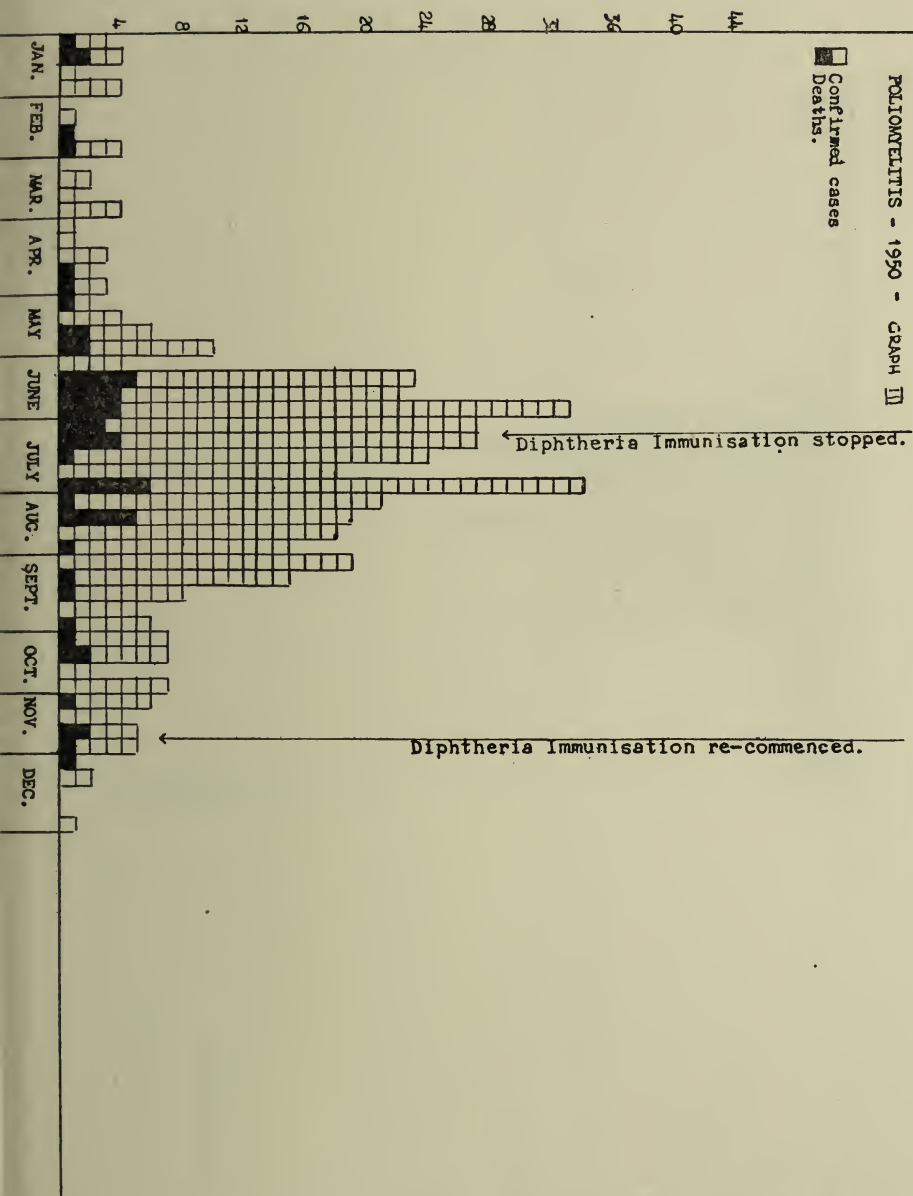
AGE IN YEARS AT BEGINNING OF ILLNESS

The peak incidence appears to fall between ages 2 & 5 years. The incidence rises sharply during first year of life.

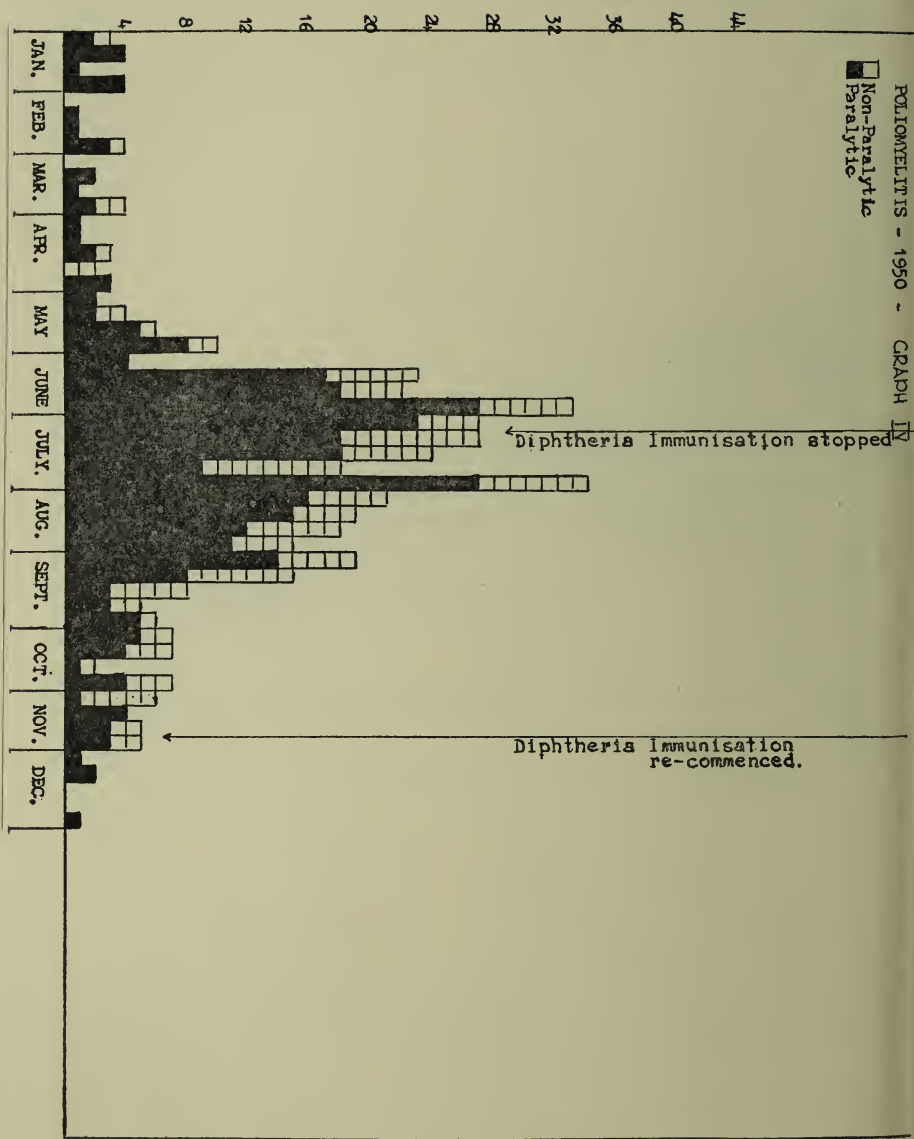


POLIOHEPHEITIS - 1950 - GRAPM III

☐ Confirmed cases
☒ Deaths.



POLIO MYELITIS - 1950 - GRAPH IV

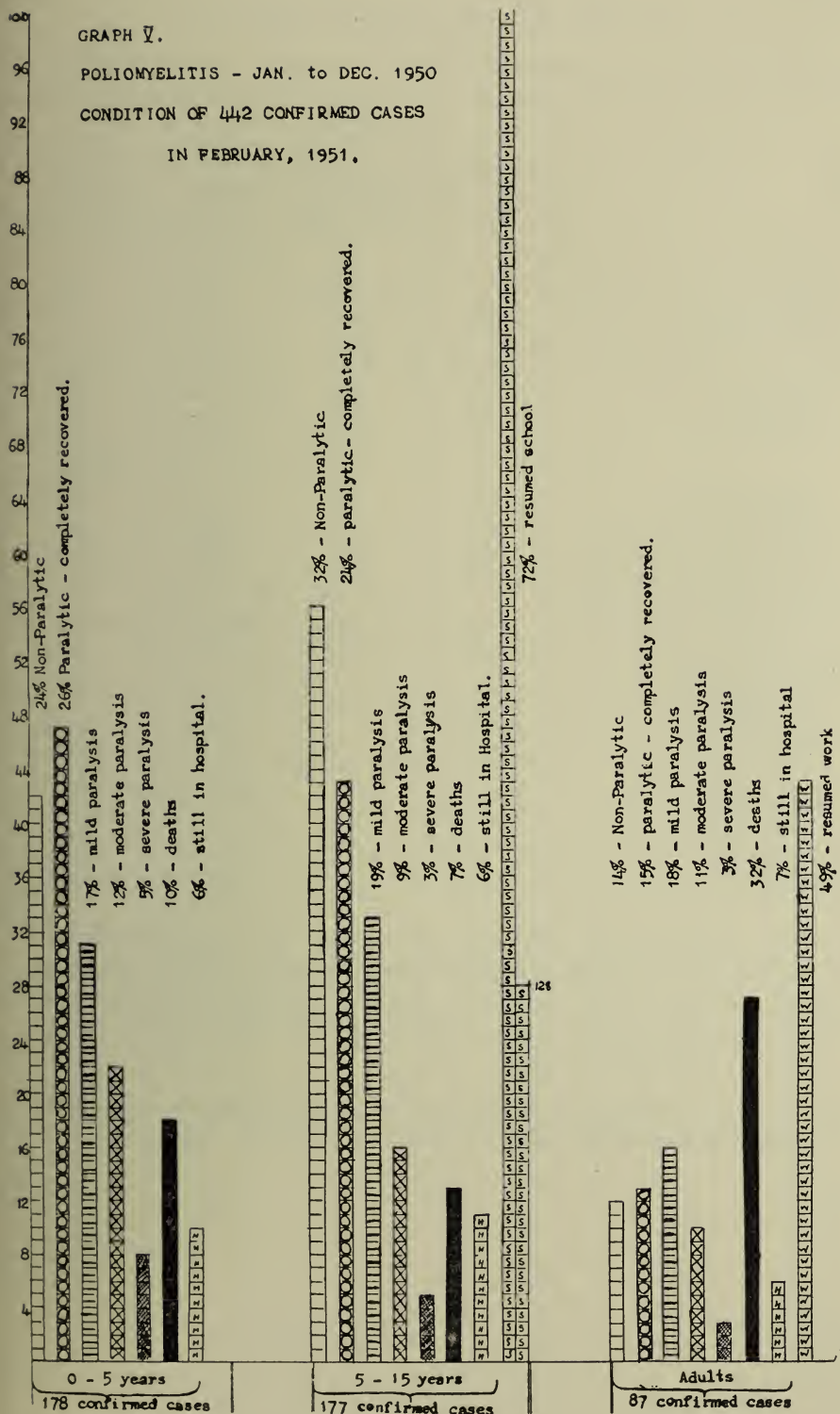


GRAPH V.

POLIOMYELITIS - JAN. to DEC. 1950

CONDITION OF 442 CONFIRMED CASES

IN FEBRUARY, 1951.



NOTIFICATIONS AND DEATHS

1950 AND 10 YEARLY AVERAGES

<i>Disease</i>	<i>Corrected number of notifications 1950</i>	<i>Yearly Average No. of corrected notifications 1940—1949</i>	<i>Number of deaths 1950</i>	<i>Yearly Average No. of deaths 1940—1949</i>
Enteric Fever	9	28	Nil	2
Smallpox	Nil	1 case in 1947	Nil	Nil
Scarlet Fever	1,568	1,803	1	2
Whooping Cough	6,172	4,418	17	47
Measles	10,575	8,309	10	16
Diphtheria	105	669	1	29
Erysipelas	243	330	Nil	Nil
Food Poisoning	72	260	1	1 death in 10 years
Puerperal Pyrexia	94	294	7	10
Ophthalmia Neonatorum	642	924	Nil	Nil
Pulmonary Tuberculosis	1,133	1,100	486	690
Other forms of Tuberculosis	120	162	32	70
Acute Primary & Influenzal Pneumonia	1,176	1,567	No comparable figures	
Meningococcal Infection	82	134	14	26
Poliomyelitis :				
Paralytic	328	43	57	5
Non-Paralytic	114			
Malaria	8	9	1	1 death in 10 years
Encephalitis :				
Post Infectious	1	5	3	12
Infective	3			
Dysentery	216	126	Nil	3

The notifications in the past year exceeded the average for the past 10 years only in respect of measles, whooping cough, pulmonary tuberculosis, poliomyelitis and dysentery. The only increase in deaths was from poliomyelitis where 57 deaths in 1950 compared with 5 as the average over the 10 previous years.

Note.—Although only 72 cases of food poisoning were actually notified, a total of 163 cases were discovered upon investigation.

TABLE I

CASES OF INFECTIOUS DISEASE NOTIFIED AND VERIFIED DURING 1950
CLASSIFIED ACCORDING TO SEX AND AGE

AGE GROUPS

DISEASE	Sex	0-	1-2	3-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75 up	Totals
Enteric Fever	M. F.	— —	— —	— 1	1 —	— —	2 1	— —	— 3	1 —	— —	— —	— —	— —	4 5
Scarlet Fever	M. F.	2 1	49 66	168 165	363 430	75 139	16 26	10 10	9 9	14 6	4 5	1 —	— —	— —	711 857
Diphtheria	M. F.	3 2	14 6	6 6	15 7	2 14	3 6	1 4	6 5	1 2	1 —	1 —	— —	— —	53 52
Erysipelas	M. F.	— 1	— —	— —	2 1	1 3	— 5	— 3	11 16	26 22	20 38	13 38	14 16	5 8	92 151
Pulmonary Tuberculosis.....	M. F.	3 5	23 17	13 9	30 14	20 14	59 69	93 100	118 128	89 52	122 23	73 12	33 10	4 —	680 453
Tuberculous Meningitis	M. F.	— —	6 1	— 1	3 2	2 5	2 2	1 2	— 1	— —	1 —	— —	— —	— —	15 14
Tuberculosis of Peritoneum & Intestines	M. F.	— —	2 —	— —	— —	1 —	— —	— —	2 3	— —	— 1	— 1	— —	— —	5 5
Other forms of Tuberculosis.....	M. F.	— 1	5 3	1 —	7 9	8 4	2 5	3 3	6 9	4 6	1 —	1 1	— 1	1 —	39 42
Poliomyelitis Paralytic*	M. F.	14 6	31 28	27 28	41 51	16 11	9 4	9 9	15 16	6 4	1 2	— —	— —	— —	169 159
Poliomyelitis Non-paralytic	M. F.	2 1	12 5	11 11	31 12	12 5	2 1	— 1	3 1	— 3	1 —	— —	— —	— —	74 40
Encephalitis Infective	M. F.	— —	1 —	— 1	— —	— —	1 —	— —	— —	— —	— —	— —	— —	— —	2 1
Encephalitis Post-Infectious	M. F.	— —	— —	— 1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— 1
Meningococcal Infection	M. F.	3 2	12 6	7 4	8 7	5 6	1 1	4 4	3 2	1 2	1 2	1 —	— —	— —	46 36
Malaria	M. F.	— —	— —	— —	— —	— —	— —	1 —	5 (1)	2 (1)	— —	— —	— —	— induced	8 (2)
Dysentery	M. F.	5 5	40 32	38 18	21 20	6 2	— 4	— 5	2 7	4 2	— 2	— 2	— 1	— —	116 100
Smallpox	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
Pneumonia Acute Primary and Influenzal	M. F.	57 27	75 55	44 56	57 46	18 7	17 12	13 15	43 38	65 50	81 63	106 50	65 55	21 40	662 514
Ophthalmia Neonatorum	M. F.	394 248	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	394 248
Puerperal Pyrexia	M. F.	— —	— —	— —	— —	— —	— 5	— 42	— 39	— 8	— —	— —	— —	— —	— 94
Measles	M. F.	173 172	1502 1364	1732 1575	1956 1881	58 68	12 17	7 10	10 22	4 10	1 —	— 1	— —	— —	5455 5120
Whooping Cough	M. F.	253 256	880 925	901 1005	876 970	15 28	2 3	2 7	4 12	6 9	2 6	1 3	— 4	— 2	2942 3230

* Includes every case of encephalitic poliomyelitis

Venereal Diseases

TABLE II

NEW V.D. CASES TREATED IN BIRMINGHAM IN 1950.

	<i>Syphilis</i>	<i>Soft Chancre</i>	<i>Gonorrhoea</i>	<i>Other Conditions</i>
General Hospital	318	—	527	2,604
Children's Hospital	—	—	—	—
Lancaster Street	48	—	5	941
Birmingham Infirmary	20	—	9	62
TOTAL	386	—	541	3,607

The following table gives the corresponding data over a period of ten years.

	<i>Syphilis</i>	<i>Soft Chancre</i>	<i>Gonorrhoea</i>	<i>Other Conditions</i>
1941	343	4	940	2,261
1942	515	2	1,030	2,906
1943	685	—	878	4,816
1944	604	—	765	4,583
1945	567	—	1,061	4,695
1946	835	—	1,510	5,437
1947	608	—	1,052	4,003
1948	602	—	782	4,086
1949	541	—	779	3,536
1950	386	—	541	3,607

Total attendances for treatment are shown below :

1941	73,175	1946	96,515
1942	83,776	1947	71,482
1943	97,973	1948	65,546
1944	92,915	1949	67,797
1945	84,539	1950	61,326

Further particulars of the work done at the centres in 1950 are as follows:

	<i>Syphilis</i>	<i>Soft Chancere</i>	<i>Gonorrhoea</i>	<i>Other Conditions</i>
No. of cases under treatment, Jan. 1st, 1950	1,506	—	395	497
New cases under treatment during year	386	—	541	3,607
Total attendances	40,446	—	5,065	15,815
No. discharged after completion of treatment and observation	257	—	384	3,468
No. transferred to other centres	128	—	58	23
No. who ceased to attend				
<i>a.</i> before completion of treatment	188	—	9	—
<i>b.</i> after completion of treatment but before final tests as to cure	86	—	241	—

No. of cases of congenital syphilis treated :

Under 1 year of age	9	Aged 5—15 years	2
Aged 1—5 years	4	Aged 15 years and over	24
TOTAL			39

Epidemic of Sore Throat at a Home Office Approved School

Between 13th April and 22nd May, 65 boys out of a total of 99, and one master, were affected. There was tonsillitis and pharyngitis with enlargement of the tonsils and their glands and these signs were accompanied by a low grade fever lasting 3 or 4 days. A few boys had diarrhoea in addition, but in no case was there a rash.

The first boy became affected only a few hours after returning from holiday, and the next two cases did not arise until 11 days later. For the next four weeks there were only 9 days on which no new cases arose.

Throat swabs from 12 cases gave growths of hæmolytic streptococci, Group A (2 cases), hæmolytic streptococci not of Groups A, C, G or F (9 cases) and no pathogenic organisms (1 case).

Affected children were isolated and the cessation of the outbreak followed the promotion of outdoor activities and increased ventilation of the school building.

LABORATORY SERVICES

(a) Analytical Laboratory

The members of the Analytical Laboratory staff have during 1950 made a total of 8,240 analyses, which easily constitutes a record, albeit one which does not seem destined to endure long, for the demands upon the services of the laboratory are steadily increasing and seem likely to do so for some time. The analytical staff consists at the moment of ten members, seven of whom have professional qualifications ranging from University graduateship to Fellowship of the Royal Institute of Chemistry.

The chief work of the Laboratory is still the analysis of foods and drugs, which are submitted under the provisions of the Food and Drugs Act, 1938, by a staff of four sampling officers. This part of the work accounted for 5,414 samples and the remaining 2,826 were miscellaneous samples of very varied kinds submitted by corporation departments, and by private persons who availed themselves of the provisions set out in the Food and Drugs Act for this purpose. The Public Health and Water Departments were responsible for the majority of such miscellaneous samples, but the Central Purchasing, Public Works, Food Inspection, Agricultural and Small Holdings, Education and Police Departments, all made their contributions to the total. Several hospitals also made use of the services provided.

In addition to the normal equipment of a Public Analyst's laboratory, there has now been built up an entirely new sub-department, which is believed to be one of the best of its kind in the country, concerned with spectrophotometrical and microbiological analysis. This was originally designed for the determination of vitamins and has proved of great value in this connexion, but is capable of being used in many other fields, for the estimation, in fact, of any substance which has a distinctive absorption curve in the visible or ultra violet spectrum. An increase in staff will certainly be necessary here if the possibilities of the new techniques are to be put to their fullest use.

Milk samples made up a large proportion (52%) of the number submitted under the Food and Drugs Act and this article was responsible for providing by far the greatest number of samples either of poor quality or actually adulterated. The now fully authenticated freezing point test enables a distinction to be made between a rich milk which has been watered down to conform with the minimum limits of quality, and a poor milk of apparently similar composition as such a diluted milk.

Four farmers were prosecuted during the year for the sale of adulterated milk and total fines of £76 were inflicted. In one of these cases very nearly one-third of the bulk of "milk" sent into Birmingham was added water, and it was calculated that over a period of 28 days about 200 gallons of water had been consigned by the producer as "pure new milk."

A fine of £1 was imposed on the proprietors of a milk bar for selling milk containing 25% water. The defence alleged that an assistant had acted contrary to instructions by selling milk which had been " diluted for use in tea and coffee " instead of directly from a bottle.

Apart from the 42 samples included in the above account, 210 other samples of milk had a composition poorer than that defined by the official limits of 3.0% fat or 8.5% solids-not-fat. 78 of these were deficient of fat and 132 of solids-not-fat or of both fat and solids-not-fat. Only 9 of the latter number were actually watered, the remainder being naturally deficient, and it is noteworthy that in the third quarter not a single sample contained added water, a phenomenon unique in my experience.

Samples apart from milk, taken under the Act, totalled 2,601, of which 2,095 were foods and the remainder drugs. Fifty-three foods were, in the words of the Act, sold " to the prejudice of the purchaser " for one reason or another, and 38 drugs were in the same category. The number of adulterated or misdescribed foods included such diverse articles as a chocolate milk beverage, synthetic creams, cereal foods, coconuts, gin, jams, kippers, mincemeat, mineral waters, Christmas puddings, sausages, soup, vinegar, and British wine, among other things, and among the rejected drugs were such things as almond oil, cod liver oil, cough mixture, eye lotions, Parrish's Food, ammoniated tincture of quinine, rose hip syrup, sulphur ointment, tannic acid jelly and throat pastilles.

It is of course impossible, in a short summary such as this, to give an account of all the various types of adulteration and false labelling, but perhaps passing references to one or two samples might be interesting. Taking as an example of a foodstuff a breakfast cereal making a number of claims regarding the content of several vitamins and trace metals, it was found that, although the declared amount of one of the B group of vitamins, riboflavin, was 0.3 milligrams per ounce, the actual amount present was only 0.18 milligrams/ounce, a deficiency of 40%. This determination was carried out by the microbiological technique already mentioned and when the makers of the food in question were asked for their observations, it was found that they were themselves pioneers in this particular field, having spent large sums of money in equipping laboratories for determinations of vitamins, etc. At a meeting with their expert it was unexpectedly disclosed that the Chairman of the Company had 15 months previously, as a result of improvements in the method of determination which had revealed that the lower figure was a closer approximation to the truth, given instructions for the label claim to be amended to 0.2 mgm./ounce, but that owing to an extraordinary series of accidents, these instructions had not been implemented. The apologies of the firm were tendered for the error and instructions given and put immediately into effect, for the statement on the label to be over stamped pending the printing of new labels. Another cereal food

making precisely the same claim regarding the ribo-flavin content was also found to be in error to about the same extent, and in this case also the guarantee was reduced at our request.

Of a rather different type were samples of British wine labelled as containing 31.5° proof spirit, the actual contents of which were only 30.9° and 30.5°. The retailer sent a number of bottles from stock to the makers, who reported that they were in fact under strength. To cut a long story short it was found that the wine, which had been in bottle for over 12 months, had thrown down a deposit and the retailer had therefore slowly strained it through a linen bag into an open container and then re-bottled it. This process was obviously the cause of the loss of alcohol and the vendor agreed to send the wine back to the makers for re-fortification if this operation had to be repeated. While on the subject of alcoholic drinks, it may be mentioned that a fine of £3 was imposed on a licensee for the sale of gin containing 14.5% added water calculated by reference to the lowest legal strength of 35° U.P. or over 20% by reference to the declaration of 70° proof spirit on the label.

As an example of a drug, two samples of cod liver oil may be mentioned on the label of which the vitamin A content was declared as 25,000 international units per fluid ounce, but which were found by spectrographic analysis to contain only 18,000 units and 17,500 units respectively. The packers alleged that the guarantee was given by the Norwegian factory and that the probable reason for the deficiency was the fact that the oil had had to be packed in plain bottles instead of amber ones, so promoting the destruction of the vitamin by sunlight. A sample of later stock actually packed in an amber bottle, was examined, but even this contained only 19,500 units/fluid ounce. It was pointed out to the firm that the oil was well above the minimum B.P. standard and that it was only on account of the fact that the label statement claimed a far higher vitamin content than is officially required that objection had been made to the sale. The firm finally agreed to cancel the misleading reference to vitamin A content on the labels.

A sample bought as ammoniated tincture of quinine consisted of spirit of sal volatile. The District Manager of the firm to which the shop belonged visited the premises and found the stock bottle to be labelled as sal volatile, but could obtain no explanation as to how the contents came to be sold as ammoniated tincture of quinine. The manageress was strongly cautioned and the possible grave consequences of an error of this kind were pointed out.

Enquiries are made in every case of adulteration or misdescription on the same lines as in the cases outlined above and nearly always a satisfactory settlement is imposed or is agreed upon. Written cautions are given in appropriate cases and where necessary reference is made to the Ministry of Food.

Miscellaneous samples included 463 water samples, 202 of which were submitted by the Water Department and 261 by the Public Health Department. Most of these required sanitary chemical analysis, and their sources were various, including Welsh water, Corporation well water, samples from institutions and from private wells. Other samples from flooded cellars or basements were analysed with a view to ascertaining their source.

1,183 samples of pasteurised milk were examined by the phosphatase test to determine the efficiency or otherwise of treatment ; 22 showed signs of some slight irregularity and 11 of gross technical flaws or the admission of raw milk. 337 samples of sterilised milk examined by the official turbidity test had all been efficiently treated. 176 samples of pasteurised and sterilised milk were also examined for outside authorities.

174 samples of ice-cream were analysed for their contents of total solids, fat, sugar, and milk non-fatty solids.

89 samples of blood and 6 of urine from patients in Yardley Green Hospital were quantitatively tested for the presence of p-aminosalicylic acid (P.A.S.) used in the treatment of tuberculosis.

Articles such as soap and soap powder and flakes submitted by firms in connexion with tenders for these articles for the use of corporation departments were analysed for the Central Purchasing Department and a number of fertilisers and feeding stuffs for the Agricultural and Small Holdings Department.

Apart from these categories of samples of which large numbers were taken, well over 100 samples of an extraordinary variety, ranging from petrol to marking ink, from poisoned sherry to poisoned sparrows, and from an electric kettle to a rheumatism remedy were received from various sources and provided in some cases a little light relief for the members of the staff.

As regards the legal aspect of the Laboratory's activities, the chief event was the coming into force of a revised and consolidated Labelling of Food Order. This contains a number of new provisions concerning standards and labelling requirements of various alcoholic and non-alcoholic beverages, and the labelling of a number of other foods, and it also restricts claims made for "tonic" preparations and regulates their labelling.

Four new Food Standards Orders, regulating the composition of curry powder, tomato ketchup and sauce, fish cakes and preserves came into operation during the year, while two Orders, the Starch Food Powder (Control) Order, 1944, and the Food Substitutes (Control) Order, 1941, having served their temporary war-time purpose, were revoked. An amendment to the Meat Products and Canned Meat Order of 1948 increased the minimum meat content in pork sausage and sausage meat from 50% to 65%, and a similar document, the Soft Drinks (Amend-

ment) Order, 1950, prescribed specification for the ingredients of all soft drinks containing citrus fruit juice and barley. The Mineral Oil in Food (Amendment) Order was made to allow of the use of stocks of dried fruit which had been treated in the countries of origin as a deterrent to insect attack. It allows the presence of not more than 1% mineral oil in such fruit.

An interesting legal decision was made during the year in connexion with the description "non-brewed vinegar." The High Court upheld a decision made by a lower court, in the case of *Kat v. Diment*, that such a description applied to a solution of acetic acid put up as a condiment was a false trade description. This decision means that all vinegar sold by retail must consist of the brewed article. The synthetic article is now being sold as "non-brewed condiment."

ANALYTICAL DEPARTMENT

THE YEAR 1950

Total Food and Drug Samples	.....	5,414
Total Samples Incorrect	.....	343
False Labels	.....	5
Offences against Labelling of Food Order	.....	13
" " Food Standard Orders	.....	11
" " Food Orders	.....	15
" " Condensed Milk Regulations	.....	—
" " Preservatives Regulations	.....	2
" " Food and Drugs Act, Sec. 3	.....	289
" " Pharmacy and Medicines Act	.....	5
" " Pharmacy and Poisons Act	.....	3
Total Miscellaneous Samples	.....	2,826
Total Samples of all types	.....	8,240
Number of Prosecutions	.....	18
Amount of Fines	.....	£80
Number of Cautions	.....	216

(b) Public Health Laboratory Service

Before July, 1948, the City Bacteriological Laboratory was doing work for many institutions and hospitals which were transferred by the National Health Service Act from the control of the Public Health Department to that of the Minister of Health. It then became necessary for the City to charge for the work done for these institutions. The urgency of keeping down the costs of the National Health Service led to some of this work being taken away from the City Bacteriological Laboratory, and placed on the shoulders of already overburdened laboratories within the Hospital Service.

A Sub-Committee of the Health Committee was appointed to consider the matter and agreed that it was an unfortunate state of affairs that a well equipped and well staffed laboratory such as the City Bacteriological Laboratory should be allowed to lapse largely into desuetude. It therefore recommended that the question of transfer of the laboratory to the Public Health Laboratory Service should be taken up with the Medical Research Council and that, if the Council were willing, they should be invited to appoint representatives to discuss it with the Health Committee representatives.

A meeting was eventually held between local representatives, the Secretary of the Medical Research Council and the Director of the Public Health Laboratory Service. The Medical Research Council representatives expressed their willingness to take over the laboratory and to provide a " Free Service " for the City and surrounding areas. If this were done the staff would be taken over on conditions not less advantageous than they then enjoyed and the premises would, with the consent of the Corporation, be leased by the Medical Research Council for a period of years.

As a result of this meeting the Health Committee recommended to the City Council that the City Bacteriological Laboratory should be transferred to the Medical Research Council as a Constituent Laboratory of the Public Health Laboratory Service. The City Council agreed to this and the transfer took effect on the 1st October, 1950.

GENERAL SECTION.
RETURN OF SPECIMENS EXAMINED DURING THE PERIOD FROM
JANUARY to DECEMBER 1950.

Specimens received		Examinations made				
Nature	No.	Type	For :	No.	Total	Totals
FAECES	1,604	Microscopical	Protozoa	30	622	1,770
			Helminths	1		
			T.B.	591		
		Cultural	Dysentery	100	1,004	
			Enterica	904		
			Food poisoning	—		
		Inoculation	T.B.	144	144	
URINES	465	Microscopical	T.B.	292	747	1,083
			Other pathogens	455		
		Cultural	T.B.		205	
			Enterica	8		
			Other pathogens	197		
		Inoculation	T.B.	131	131	
		SWABS	2,626	Microscopical	T.B.		71	731	3,841
Streptococci	—					
Vincent's Angina	266					
Other pathogens	394					
Cultural	T.B.			57	3,103	
	Diphtheria			1,722		
	Streptococci			840		
	Other pathogens			484		
Inoculation	Virulence			7	7	
TOTALS carr. forward	4,695			6,694	6,694	6,694

<i>Specimens received</i>		<i>Examinations made</i>				
<i>Nature</i>	<i>No.</i>	<i>Type</i>	<i>For :</i>	<i>No.</i>	<i>Total</i>	<i>Totals</i>
Brought forward	4,695			6,694	6,694	6,694
SPUTA	2,525	Microscopical	T.B.	2,875		
			Other pathogens	67	2,942	
		Cultural	T.B.	2,049		
			Other pathogens	65	2,114	
		Inoculation	T.B.	3		
			Other pathogens	—	3	5,059
STOMACH WASHES	483	Microscopical	T.B.	504	504	
		Cultural	T.B.	502	502	
		Inoculation	T.B.	—	—	1,006
BLOOD	55	Microscopical	Malaria	5		
			Cell count	—	5	
		Cultural	Enterica	1		
			Septicaemia	—		
			Brucellosis	—		
			Other pathogens	16	17	
		Serological	Agglutination	281	281	303
BODY EXUDATES AND FLUIDS	169	Microscopical	T.B.	152		
			Other pathogens	125	277	
		Cultural	T.B.	113		
			Other pathogens	121	234	
		Inoculation	T.B.	4	4	515
TOTALS <i>carr. forward</i>	7,927			13,577	13,577	13,577

Specimens received		Examinations made				
Nature	No.	Type	For	No.	Total	Totals
Brought forward	7,927	Microscopical Cultural Inoculation		13,577	13,577	13,577
CEREBRO- SPINAL FLUIDS	72		T.B.	65	80	164
			Other pathogens	15		
			T.B.	64	79	
			Other pathogens	15		
WATERS	1,332	Cultural	Hygienic assay	1,332	2,664	2,664
		Spec. pathogens	1,332			
		Enterica	—			
MILKS	1,753	Reductase and/or Cultural	Hygienic assay	1,753	2,061	4,345
			Spec. pathogens	308		
			Food poisoning	—		
		2,266	Inoculation	T.B.	2,284		2,284
CREAMS	160	Reductase and/or Cultural	Hygienic assay	160	320	320
			Spec. pathogens	160		
			Food poisoning	—		
ICE CREAMS & “ MIXES ”	792	Reductase and/or Cultural	Hygienic assay	792	792	792
			Spec. pathogens	—		
SHELL FISH (samples)	50	Cultural	Hygienic assay	50	50	50
			Spec. pathogens	—		
FOOD STUFFS	24	Cultural	Food poisoning	24	41	41
			Hygienic assay	—		
			Spec. pathogens	17		
		Inoculation or feeding	Food poisoning	—		
TOTALS carr. forward	14,376			21,953	21,953	21,953

<i>Specimens received</i>		<i>Examinations made</i>				
<i>Nature</i>	<i>No.</i>	<i>Type</i>	<i>For :</i>	<i>No.</i>	<i>Total</i>	<i>Totals</i>
<i>Brought forward</i>	14,376			21,953	21,953	21,953
CORD DUSTING POWDERS	50	Cultural	Sterility	50	50	50
SPUTUM, PUS, SWABS, ETC.	701	Sensitivity test of Organisms	Streptomycin	655	702	702
			Penicillin	47		
MISCELLANEOUS						
Blood slide	1		Blood count	1		
Disinfectant	1		Rideal-Walker	1	2	2
Mouse	1	Cultural	Enterica	1	1	1
Earth Scrapings	1	Cultural	Enterica	1	1	1
Dust	3	Cultural	Pathogens	3	3	3
Sewer Swabs	15	Cultural	Enterica	15	15	15
Dust plates	6	Cultural	Pathogens	6	6	6
Culture	2	Cultural	Enterica	1		
			Pathogens	1	2	2
Duck eggs	3	Cultural	Food poisoning	3	3	3
Empty Bottles	14	Cultural	Hygienic assay	14		
			Spec. pathogens	14	28	28
Plates	1	Cultural	Other pathogens	1	1	1
Bottle and cap	5	Cultural	Hygienic assay	5		
			Spec. pathogens	5	10	10
Churn washing	11	Cultural	Hygienic assay	11		
			Spec. pathogens	11	22	22
Bull dog faeces	1	Microscopical Inoculation	T.B.	1		
			T.B.	1	2	2
Lollipop Stick	1		Spec. pathogens	1	1	1
Lollipop	1		Hygienic assay	1		
			Spec. pathogens	1	2	2
GRAND TOTALS	15,194			22,804	22,804	22,804

VENEREAL DISEASES EXAMINATIONS

FOR YEAR ENDING DECEMBER 31ST, 1950

<i>Specimen</i>				<i>Examination</i>			
Blood	.....	.....	31,150	For Wassermann test	.....	31,108	
				„ Gono. fix. test	.....	4,319	
				„ Kahn test	.....	15,504	
				„ Laughlen test	.....	15,618	
				„ Van den Bergh	.....	1	
				„ Penicillin content	.....	9	
C.S. Fluid	.....	.....	1,145	For Wassermann test	.....	1,145	
				„ Cell count	.....	345	
Films	.....	.....	9,294	For Gonorrhoea	.....	9,294	
Urine	.....	.....	49	For microscopical test	.....	2	
				„ chemical test	.....	8	
				„ penicillin content	.....	39	
Cultures	.....	.....	7,384	For Gonorrhoea	.....	7,384	
TOTAL	.....	.....	49,022			84,776	

TUBERCULOSIS

During the year there was no alteration in the number of beds available for treatment, but because of the active development of domiciliary treatment, to which reference is made in another section of the report, the immediate waiting list on the 31st December, 1950, was 125, a reduction of 50% in comparison with the corresponding figure for 1949. The circumstances however are hardly comparable, and the figures are only of general interest.

Notifications, 1950

ALL FORMS OF TUBERCULOSIS

Rate : 1·12 per 1,000 of the population.

(a decrease in comparison with 1949 of 32 cases, or 0·03 per 1,000 of the population).

PULMONARY TUBERCULOSIS

Rate : 1·01 per 1,000 of the population.

(A decrease of 0·01 per 1,000 of the population, in comparison with 1949).

NON-PULMONARY TUBERCULOSIS

Rate : 0·11 per 1,000 of the population.

(A decrease in comparison with 1949 of 32 cases or 0·03 per 1,000 of the population).

Deaths, 1950

ALL FORMS OF TUBERCULOSIS

Rate : 0·46 per 1,000 of the population.

(A decrease in comparison with 1949 of 129 deaths or 0·12 per 1,000 of the population).

PULMONARY TUBERCULOSIS

Rate : 0·43 per 1,000 of the population.

(A decrease in comparison with 1949 of 109 deaths or 0·10 per 1,000 of the population).

NON-PULMONARY TUBERCULOSIS

Rate : 0·03 per 1,000 of the population.

(A decrease in comparison with 1949 of 20 deaths or 0·02 per 1,000 of the population).

The number of cases and deaths occurring in past years are shown in the following tables.

TUBERCULOSIS (ALL FORMS)

<i>Year</i>	<i>New cases</i>	<i>Rate per 1,000 population</i>	<i>Deaths</i>	<i>Rate per 1,000 population</i>
1901—1910 (Average)	—	—	1,309	1·65
1911—1920 („)	—	—	1,284	1·46
1921—1930 („)	1,824	1·91	1,031	1·08
1931—1935 („)	1,459	1·43	928	0·91
1936	1,136	1·10	805	0·78
1937	1,119	1·07	836	0·80
1938	1,209	1·15	813	0·78
1939	1,036	0·98	885	0·84
1940	1,049	1·03	855	0·84
1941	1,073	1·13	850	0·90
1942	1,257	1·30	833	0·86
1943	1,239	1·28	750	0·78
1944	1,371	1·38	782	0·79
1945	1,348	1·36	749	0·76
1946	1,300	1·28	689	0·68
1947	1,407	1·31	748	0·70
1948	1,294	1·18	696	0·63
1949	1,285	1·16	647	0·58
1950	1,253	1·12	518	0·46

The relative prevalence and mortality of pulmonary and other forms of tuberculosis are shown in the two subsequent tables.

PULMONARY TUBERCULOSIS

<i>Year</i>	<i>New cases</i>	<i>Rate per 1,000 population</i>	<i>Deaths</i>	<i>Rate per 1,000 population</i>
1901—1910 (Average)	—	—	993	1·25
1911—1920 („)	—	—	1,059	1·20
1921—1930 („)	1,533	1·61	892	0·94
1931—1935 („)	1,225	1·20	824	0·80
1936	962	0·93	734	0·71
1937	965	0·93	756	0·72
1938	1,011	0·96	732	0·70
1939	863	0·82	808	0·77
1940	899	0·88	786	0·77
1941	922	0·97	768	0·81
1942	1,069	1·11	745	0·77
1943	1,106	1·14	681	0·71
1944	1,190	1·20	696	0·70
1945	1,193	1·21	671	0·68
1946	1,135	1·12	616	0·61
1947	1,223	1·14	691	0·64
1948	1,132	1·03	650	0·59
1949	1,133	1·02	595	0·54
1950	1,133	1·01	486	0·43

NON-PULMONARY TUBERCULOSIS

<i>Year</i>	<i>New cases</i>	<i>Rate per 1,000 population</i>	<i>Deaths</i>	<i>Rate per 1,000 population</i>
1901—1910 (Average)	—	—	317	0·40
1911—1920 („)	—	—	224	0·26
1921—1930 („)	290	0·31	139	0·14
1931—1935 („)	234	0·23	104	0·10
1936	174	0·17	71	0·07
1937	154	0·15	80	0·08
1938	198	0·19	81	0·08
1939	173	0·16	77	0·07
1940	150	0·15	69	0·07
1941	151	0·16	82	0·09
1942	188	0·19	88	0·09
1943	133	0·14	69	0·07
1944	181	0·18	86	0·09
1945	155	0·16	78	0·08
1946	165	0·16	73	0·07
1947	184	0·17	57	0·05
1948	162	0·15	46	0·04
1949	152	0·14	52	0·05
1950	120	0·11	32	0·03

The localisation in the case of the 32 deaths from non-pulmonary tuberculosis is shown in statement (a) below, and an analysis according to sex and age of all notifications and deaths is given in statement (b).

(a)	Tuberculous meningitis	.....	.....	.....	.....	24
	Abdominal tuberculosis	.....	.....	.....	.....	1
	Tuberculosis of other organs	.....	.....	.....	.....	7

(b) PULMONARY TUBERCULOSIS

<i>Age</i>	<i>Male</i>		<i>Female</i>	
	<i>Cases</i>	<i>Deaths</i>	<i>Cases</i>	<i>Deaths</i>
0—	3	1	5	1
1—2	23	3	17	1
3—4	13	—	9	—
5—14	50	1	28	1
15—24	152	15	169	35
25—44	207	84	180	83
45—64	195	169	35	42
65—74	33	35	10	7
75 and over	4	7	—	1
	680	315	453	171

TOTAL CASES, 1,133 ; TOTAL DEATHS, 486.

NON-PULMONARY TUBERCULOSIS

Age	Male		Female	
	Cases	Deaths	Cases	Deaths
0—	—	—	1	1
1—2	13	2	4	1
3—4	1	2	1	1
5—14	21	3	20	5
15—24	8	3	12	4
25—44	12	4	19	1
45—64	3	3	3	—
65—74	—	2	1	—
75 and over	1	—	—	—
	59	19	61	13

TOTAL CASES, 120 ; TOTAL DEATHS, 32.

Grand Totals :

(Pulmonary and Non-Pulmonary): Cases, 1,253 ; Deaths, 515.

The high mortality from pulmonary tuberculosis in the prime of adult life is an important fact which demands constant reiteration. This is clearly demonstrated in these figures.

Of the total deaths in males in 1950, 99 or 31·5% occurred in the age period 15—44, whilst in females the corresponding figure was 118 or 69·0%.

The figures of mortality for 1950 are of the utmost interest and importance. Since 1939 there has been a marked reduction in mortality. There were 322 fewer deaths from pulmonary tuberculosis in 1950 than in 1939, and 109 fewer than in 1949 ; a reduction of 39·9% and 18·3% respectively. It is difficult at this moment to isolate the responsible factor. It may be related to the intensive use of antibiotic treatment (Streptomycin/P.A.S.) in all suitable cases at the earliest appropriate moment in diagnosis or, it may reflect the gathering effectiveness of the social services concerned with the control of tuberculosis. Whatever the cause, the circumstances are propitious and should demand the fullest application of all those measures in prevention, isolation, and treatment, whose value is recognised and proven.

Every effort should be made to increase the number of beds available for treatment, both in the sanatoria and in the general hospitals. The recent record of the Regional Hospital Board in this matter is a good one, but endeavours should be further intensified in the light of these encouraging results.

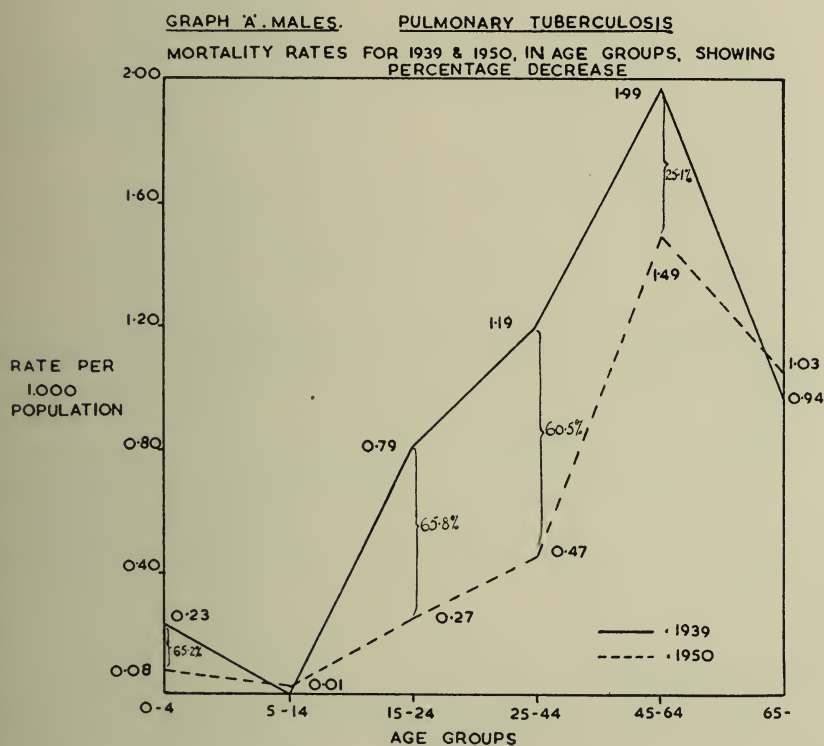
The provision of suitable houses where a case of tuberculosis is discovered should take the highest priority and no tuberculous person should be permitted to reside in any house where he or she may easily infect the remainder of the family or other relatives.

Hostels should be provided for those patients whose houses are unsuitable and who do not require medical or surgical treatment.

The moment is more than ripe for co-ordinated and vigorous preventive action. The final eradication of tuberculosis from the City is within reach if the opportunity now so freely offered is grasped without delay and with sure effectiveness.

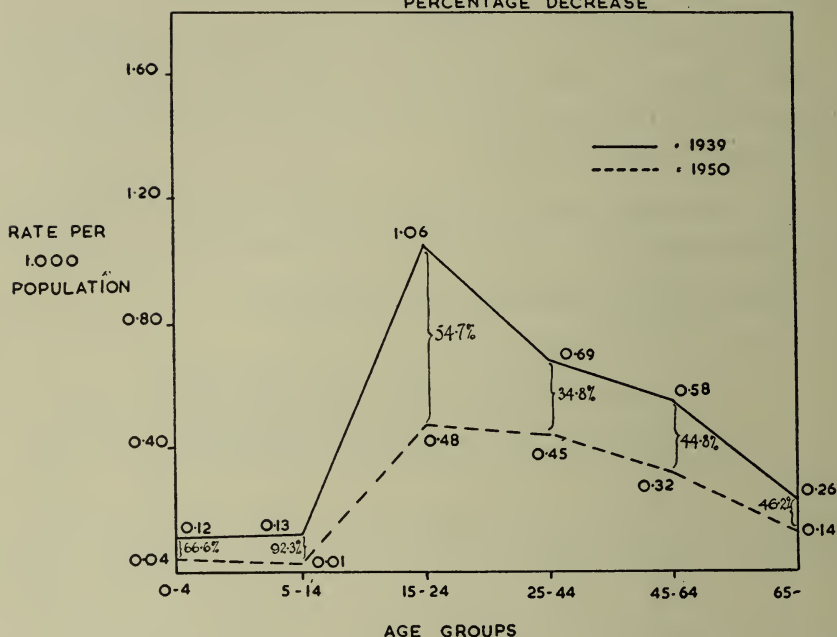
It is of some interest to compare the mortality rates in the several age groups and in each sex for the years 1939 and 1950.

These rates are shown in the following graphs :—



It is evident that there is no material alteration in the general trend of the graph ; the highest mortality, as in 1939, persists in the age group 45—64, although the reduction in the age periods 15—24 and 25—44 is impressive and comparable. The high incidence in old age is noteworthy and in this age group and in the age group 45—64, where the bulk of the cases occur, endeavours in case finding should be greatly intensified.

GRAPH 'B'. FEMALES. PULMONARY TUBERCULOSIS
MORTALITY RATES FOR 1939 & 1950, IN AGE GROUPS, SHOWING
PERCENTAGE DECREASE



This graph is of much interest because of the remarkable reduction of the familiar peak in the young adult age period (15—24), a reduction of 54.0%, with, in 1950, an incidence in the 15—24 age group comparable with that in the age period 25—44.

This alteration, with the considerable reduction in the age groups 15—24 and 25—44 for males, suggests the effect of streptomycin and P.A.S., but the substantial alteration in the figures for mortality at all ages in each sex, with the exception of the 65—74 group in males, is most noteworthy.

Non-Notification

The number of deaths from pulmonary tuberculosis which were not notified was 31 or 6.4% and from non-pulmonary tuberculosis 10 or 31.3%.

The percentage of these deaths from all forms of tuberculosis was therefore 8.0%, but in 13 cases the diagnosis was established following an autopsy, and the corrected figure is 5.4% of the total deaths from all forms of tuberculosis.

The corresponding figure for 1949 was 5.7% and it should be recorded that during the past few years there has been an unfortunate tendency for this figure to increase. 1944—2.9% ; 1950—5.4%.

Contacts

The supervision of contacts is undertaken at the Mass Radiography Department and at the Chest Clinic, with the results shown in the following table.

<i>Age and condition of contacts</i>	<i>Total cases</i>	<i>Contacts to patients with sputum containing tubercle bacilli</i>	<i>Contacts to patients with negative sputum</i>
<i>0—5 years</i>			
Tuberculous	43 (5.2%)	30 (69.8%)	13 (30.2%)
Non-tuberculous	784 (94.8%)	450 (57.4%)	334 (42.6%)
	827	480	347
<i>6—15 years</i>			
Tuberculous	14 (1.7%)	10 (71.4%)	4 (28.6%)
Non-tuberculous	818 (98.3%)	310 (37.9%)	508 (62.1%)
	832	320	512
<i>16 years and over</i>			
Tuberculous	63 (3.4%)	38 (60.3%)	25 (39.7%)
Non-tuberculous	1,801 (96.6%)	796 (44.2%)	1,005 (55.8%)
	1,864	834	1,030
GRAND TOTAL			
<i>All Ages</i>			
Tuberculous	120 (3.4%)	78 (65.0%)	42 (35.0%)
Non-tuberculous	3,403 (96.6%)	1,556 (45.7%)	1,847 (54.3%)
	3,523	1,634	1,889

Work of the Tuberculosis Visitors

There are 12 nurses engaged as tuberculosis visitors in the department. The visitors are concerned with the domiciliary welfare of the patient; the range of their duties is wide, and the character of the work varied. It is their primary duty to make enquiry into every case of tuberculosis, and maintain by regular visits close contact with the patient in his or her home.

During the year, the already considerable and important duties of the health visitors were extended by further work in connection with the B.C.G. Vaccination Scheme, the Tuberculin Survey conducted in conjunction with the Education Department, and the opening of the Remploi Factory: these duties they have discharged with high efficiency and their helpful collaboration is gladly acknowledged.

After-care in all its aspects is the concern of the visitor, and an indication of the scope of the work is shown in the following statement.

Visits paid by the Tuberculosis Visitors during 1949 and 1950

	1949	1950
Primary visits to new cases	1,581	1,380
Special visits and routine re-visits	27,134	33,055

The following statement gives an indication of certain of the after-care activities of the department.

	1949	1950
Beds issued	432	602
Chalets provided	15	18
Grants of clothing and nursing appliances	415	492
Grants of food made	173	180
Home helps provided	13	9

Disinfection

The disinfection of 1,218 houses where a member of the family had suffered or died from tuberculosis or changed his or her address, was undertaken during the year.

Housing

The closest attention is given to this most important of problems and a special section of the department gives it particular attention.

Appropriate information is obtained from the patient or his relatives, from the health visitors, or from the sanatorium welfare officers. The clinical records are assessed by the chest physician and each application submitted to the Estates Department contains a clinical category which records particularly the stage of the tuberculous disease, and whether, in the case of pulmonary tuberculosis, the sputum is positive or negative.

A form of priority, carefully graded to the infectious or potentially infectious character of the disease has been devised and forms the essential basis for the priority allocation of houses. Special attention is given to those cases where the patient fails to accept the house—in such instances a special report is submitted by the Estates Department to the Medical Officer of Health and the reason for refusal, which is frequently a financial one, is considered and if possible the difficulty removed.

During 1950 the Estates Department was able to offer suitable accommodation to 196 families ; an increase in comparison with 1949 of 48 houses. The number of houses allocated to tuberculous families during the past five years is shown below.

1946	69 houses
1947	215 „
1948	234 „
1949	148 „
1950	196 „
TOTAL	862 „

Action Under Legal Enactment

It was unnecessary during the year to take action under the Public Health (Prevention of Tuberculosis) Regulations 1925, relating to tuberculous employees in the milk trade ; nor was Section 172 of the Public Health Act, 1936, employed to remove any patient compulsorily to a sanatorium.

Rehabilitation

Considerable progress has been made during the year with the development of the general scheme for the rehabilitation and re-employment of the tuberculous patient, The Remploy Factory which was the subject of several reports to the Tuberculosis Sub-Committee during 1945, was opened during May, 1950, and the first patient-employees were accepted during the same month. Its value is already evident.

A Medical Interviewing Committee has been appointed and meets at the chest clinic each week and all patients whose return to work is under consideration, are referred to this Committee.

Its constitution is as follows :—

Chest Physician (also representing Health Authority).

Industrial Medical Officer.

Disablement Rehabilitation Officer.

The work undertaken during the year is shown in the following statement :—

Number of patients interviewed by the Disablement Rehabilitation Officer, 1.1.50—28.2.50	16
Number of patients interviewed by the Medical Interviewing Committee, 1.3.50—31.12.50	198
	<hr/>
	214
	<hr/>

The following statement shows the several recommendations made by the Medical Interviewing Committee :—

Sheltered Factory (Remploy)	49
Awaiting admission to sheltered factory. (Remploy)	21
Admitted to vocational training course	17
Awaiting admission to vocational training course	5
Placed in open industry following training course	2
Placed as trainee with private employer	3
Placed in open industry	59
Self-employed	2
Placed in sanatorium	5
Unplaced	10
Failures (patient did not report to Ministry of Labour)	12
Unfit for work	9
Re-interviews	20
	<hr/>
	214
	<hr/>

Those prospective patient-employees who are selected for work in the Sheltered Factory by the Medical Interviewing Committee, attend a special " Panel " where the recommendations are considered by the manager of the factory ; 80 patients have attended that " Panel " and 63 have been accepted.

The work undertaken is light engineering in character and the period of employment is related to the physical condition of the patient-employee. The equipment is excellent and the canteen facilities most favourable. At the end of the year 55 patient-employees were at work and a good beginning made with a project which should develop to the great advantage of the tuberculosis service.

Occupational Therapy at Home

The number of patients undergoing active treatment at home is the subject of comment in another section of this report. Diversional and vocational therapy is of importance for these patients and has been given special attention. A vocational therapist has been appointed and a scheme of work for this particular group of patients devised. Its general character will be diversional in form and the facilities in the meantime will be confined to those patients for whom active treatment is being undertaken at home, and who are confined to bed.

B.C.G. Clinic

This clinic was established during the early part of the year and its work has developed well. Special accommodation has been provided at the Carnegie Institute and the radiological facilities available have added very considerably to the ease and efficiency of the work.

Vaccination has been offered to the contacts of tuberculous patients and by the end of the year 591 contacts had been examined and 212 vaccinated.

The routine is shown in statement (a) below and the extent of the work in statement (b) :—

(a)

First Tuberculin Test (intradermal) (0.1 mg. or in infants tuber- lin jelly). if NEGATIVE	Interval of six weeks. No contact with known case of tuberculosis	Second Tuberculin Test (intradermal) 0.1 mg. if NEGATIVE B.C.G. vaccination	Interval of six weeks. No contact with known case of tuberculosis.	Third Tuberculin Test (intradermal) 0.1 mg. if POSITIVE vaccination successful
---	--	---	---	--

(b)

AGE GROUPS

	0-1	1-2	2-3	3-4	4-5	5-10	10-15	15 up.	Totals
Number exam'd	58	41	33	39	38	129	97	156	591
Number negative initial test	50	29	19	16	19	49	27	20	229
Number positive initial test	8	12	14	23	19	80	70	136	362
Number negative second test	50	29	18	14	17	48	24	13	213
Number positive second test	—	—	1	2	2	1	3	7	16
Number vaccinated	50	29	18	14	17	48	24	13	213
Number positive third test	48	27	17	12	17	48	24	12	205
Number negative third test	2	2	1	2	—	—	—	1	8
Number re-vaccinated	2	2	1	2	—	—	—	1	8
Number positive following re-vaccination	2	2	—	2	—	—	—	1	7
Total vaccinated	50	29	18	14	17	48	24	13	213
Total converted	50	29	17	14	17	48	24	13	212

The problem of segregation during the period of vaccination has been a difficult one and has been secured by the admission of the patient to a sanatorium or by removal of the child to a nursery or to the home of a relative. During this period the effectiveness of the segregation has been entrusted to the health visitors, and that duty has been well discharged.

This problem of segregation however is most awkward and tends to impede the general progress of the scheme for vaccination. It has been the subject of careful examination and it has been decided to proceed with vaccination without segregation if the home conditions are satisfactory. This would appear a reasonable decision because of the futility of any attempt to complete the programme if the policy of segregation is rigorously observed and because of the known safety of the vaccine.

Vaccination without segregation has therefore been applied where the implications have been explained to and accepted by the responsible relative and where the home conditions are satisfactory.

No complications have so far arisen following vaccination—the average size of the vaccination reaction at 6 weeks is shown in the following photograph and in very few instances has it exceeded that size. There have been no glandular reactions and no general reactions.



It will be observed from the routine plan that 1:1000 (0.1 mg.) has been used as the sole tuberculin test with the occasional use of tuberculin jelly for the first test in infants. This reduction in the number of tests has greatly facilitated the work and has not been the cause of any undesirable reactions in the initial tuberculin tests. In 16 cases 1 mg. was used to confirm a doubtful initial tuberculin test.

The general organisation of the clinic has been the responsibility of Mrs. Thomas and Miss Bond and their endeavours have been most commendable.

Protection of Children from Tuberculosis

In accordance with the recommendations contained in the Ministry of Health Circular 64/50 arrangements have been made for regular radiological (pulmonary) examination of the members of staffs of day nurseries; these arrangements have been made with the helpful co-operation of Dr. Scurlock, Senior Administrative Medical Officer to the Birmingham Regional Hospital Board, and Dr. Halliday Sutherland, Medical Director of the Birmingham Mass Radiography Unit.

Hostels

The provision of hostels for those patients with chronic pulmonary tuberculosis whose home conditions are unsatisfactory but who do not require special hospital or surgical care, has been considered during the year. Tentative plans have been made and all the problems of location and administration have been examined. There was some doubt whether the provision of such hostels was in fact the responsibility of the Health Committee or the Regional Hospital Board.

A conference was convened by the Regional Hospital Board and was held in Birmingham during November, when this problem and the related problem of the institutional care of the chronic sick were examined. A liaison committee was established to which this question of the provision of hostels for tuberculous patients has now been referred.

In order to assess the extent of the need, a survey is now being undertaken by the Department of Social Medicine (University of Birmingham), in which particular attention is being given to the social circumstances of the patient and his need for special medical and nursing care. The survey is being undertaken in the Birmingham sanatoria and will be extended to an appropriate number of patients in their own homes. The information obtained should be of great value in the determination of the extent and character of institutional accommodation required for the care of the tuberculous population.

Domiciliary Treatment

The shortage of sanatorium beds and the increasing use of Streptomycin/P.A.S. has required the adoption of active domiciliary treatment.

It cannot be considered as an ideal procedure but the present conditions clearly warrant its adoption. The scheme has been introduced with the keen co-operation of the General Practitioners and with the assistance of the district nurses. At the end of the year 106 cases had been treated with the following results.

<i>Type of disease</i>	<i>Number</i>	<i>Streptomycin-P.A.S. adequate</i>	<i>Collapse required</i>	<i>Good but inadequate</i>	<i>No change</i>
Minimal	4	3	1	Nil	Nil
Exudative only	20	10	10	Nil	Nil
Exudative and cavitation	45	2	32	10	1
Chronic	20	Nil	7	4	9
Tension	17	1	14	2	Nil
TOTAL	106	16	64	16	10

(See Dr. H. J. T. Ross, Lecture to Midland Tuberculosis Association, 6.1.51).

The results are satisfactory and have very fully justified the scheme. When collapse therapy is necessary the patient is admitted to a "short stay" bed in a sanatorium and discharged when the therapy is well established; a period of approximately three weeks. Monthly radiographs are arranged at the central chest clinic or where necessary by mobile radiography unit at home.

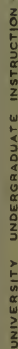
This scheme has been effectively and easily applied because of the complete co-operation between the Management Committee of the sanatoria and the Local Health Authority.

This domiciliary service is supported by a domiciliary library service now in process of inauguration by the St. John and Red Cross Hospital Libraries, and a Home Help service which is the immediate responsibility of the Local Health Authority.

Integration of the Tuberculosis Service

The Birmingham sanatoria with the central chest clinic are under the direction of one hospital management committee, whose sole responsibility is in the control of these hospitals. The Chairman of the management committee is also the Chairman of the Tuberculosis (Domiciliary and After-Care) Sub-Committee of the Health Committee of the City of Birmingham.

The Medical Officer of Health is a member of the Hospital Management Committee, and in ultimate control of the preventive service in tuberculosis for the City. The Chief Clinical Tuberculosis Officer is responsible for the co-ordination of the clinical practice throughout the sanatoria and clinics, and is the Senior Tuberculosis Officer of the Health Authority and the Advisor of the Medical Officer of Health and the Authority in problems of tuberculosis prevention. There is here more than the semblance of unity. The progress and degree of integration attained on the Health Authority side may be ascertained from this report and the appended diagram.



MATERNITY AND CHILD WELFARE

GENERAL COMMENTS

The second full year of operation of the National Health Service does not show such satisfactory results in relation to the Midwifery Service as in 1949. The fall of 1·2 in the birth rate has been coincident with a rise of 1·3 in the stillbirth rate. While there has been a fall of one per thousand in the infant death rate, the neonatal death rate has actually risen by 1·3 compared with 1949. The rise in the stillbirth rate and in the neonatal death rate calls for a very close examination of the maternity services, and, in particular, of the ante-natal care. Because of the new type of health visitors' visiting card which was introduced in 1949, it has been possible to do this in relation to neonatal deaths and we are much indebted to the Central Statistical Office for the interest and assistance we have received in analysing the information from these cards. It is hoped to have information available in a similar form in relation to stillbirths in 1951. Even with the present records it has been possible to analyse the information in relation to stillbirths in some detail.

The various points of importance are discussed in more detail later in this report. Suffice it to say at this juncture that when 1949 and 1950 are compared there was a slight fall in the incidence of primiparæ (-9%) and a somewhat greater increase in the incidence of women having their fourth or more confinement (+1·2%). The proportion of breech presentations was higher (2·8% compared with 2·1%). The higher proportion of breech presentation may be partly due to the higher incidence of multiple births, i.e., 522 liveborn twins and triplets compared with 468 in 1949. The neonatal mortality rate associated with breech presentation was 118·3 compared with 101·9 in 1949 and the part of the general neonatal death rate associated with breech delivery and other intranatal emergencies showed a marked increase. The incidence of toxæmia was slightly higher in 1950. Although the actual neonatal death rate associated with toxæmia was lower it represented a rather higher proportion of the general neonatal death rate than in 1949. A slightly higher neonatal death rate is found among infants of women employed outside their own homes compared with women who do not go out to work.

There has been a marked increase in the number of stillbirths in nursing homes accounting for one quarter of the rise in this number. There has been a rise in the part of the stillbirth rate associated with toxæmia in the mother. This rise has been confined practically to booked hospital cases. Thus, considering the neonatal and stillbirth rate together, although the proportion of cases of toxæmia among the mothers confined is only slightly higher than in 1949, the effect on the death rate among babies has been greater. At the same time, there does not appear to have been any diminution in the amount of antenatal care given to patients.

The incidence of prematurity among live and stillbirths has increased. It is desirable that women who unexpectedly go into premature labour eight or more weeks before term should be admitted to hospital before delivery as by doing so the chance of survival of their premature infants is increased.

There has also been a rise in the maternal death rate due to an increase in the death rate from sepsis, abortion and hæmorrhage. Another feature has been that there were no less than five deaths from pulmonary embolism, three of which followed cæsarean section and two of which followed normal deliveries.

The policy laid down at the beginning of the National Health Service whereby patients who have booked a general practitioner for antenatal and postnatal care are not, except in special circumstances, accepted at clinics for intermediate examination by local authority medical officers, has been maintained. It is felt that taking the long term view this is likely to lead to more satisfactory results. At least 40 practices in the City have special clinics for the examination of pregnant women. The City midwives attend many of these clinics to assist the general practitioners. There is still a great deal to be done to make the new machine work smoothly but there is no doubt that in the past year there has been a marked advance in the co-operation between the midwife, the general practitioner and the department.

In spite of the fact that one quarter of the women whose confinements resulted in live births live in households where there are two or more persons per room, the death rate between 1 and 12 months, when environmental factors play such an important part, shows a substantial fall. While the proportion of pregnant women who attend Corporation clinics has fallen by one-third since 1947, the attendance at child welfare centres has been well maintained.

The arrangements for those women who require admission to a maternity hospital for medical or social reasons cannot be said to be satisfactory so long as 40 per cent. of those admitted have to be discharged before the tenth day because of pressure on bed accommodation. The solution of this problem is not easy. On the one hand we find that of the 8,907 live births which occurred in hospital, 5,202 were preceded by a normal antenatal period, 7,066 had a normal delivery and 7,690 had a normal vertex presentation, yet on the other hand, 2,709 of the women confined in hospital came from homes where there were two or more persons per room, and 1,706 in whose homes there was the same degree of overcrowding, were actually confined there. It is hoped that it may be possible to carry out an investigation into the effect of early discharge on these women, especially when, in many cases, they have to go back to these overcrowded conditions.

Births

There were 18,833 live births and 444 stillbirths among Birmingham residents, making a total of 19,277 births during the year.

Information as to residence was available as follows in relation to 21,295 births.

	<i>Live Births</i>	<i>Still- births</i>	<i>Total</i>
Born and resident in Birmingham	16,990	416	17,406
Born away—resident in Birmingham	1,843	28	1,871*
Born in Birmingham—resident away	1,928	90	2,018

*Including 1,341 live births and 25 stillbirths which occurred in Marston Green Maternity Hospital.

Of the 19,001 confinements of Birmingham residents which took place in the City, in Marston Green Hospital, or elsewhere, there were 18,728 single births, of whom 417 were stillborn, 270 pairs of twins, of whom 26 infants were stillborn and three sets of triplets, of whom one was stillborn.

One quarter of the Birmingham women whose confinement in 1950 resulted in a live birth came from households where there were two or more persons living per room and 47% came from households where there were 1·5 or more persons per room. Yet the infant death rate between one and twelve months shows a substantial fall. For the purpose of this calculation, the standard of the Housing Act, 1936, was not taken but every individual, irrespective of age, occupying accommodation was counted as a unit.

Although the total birth rate has fallen the percentage of primiparae was slightly lower than in 1949, i.e., 36·9% as compared with 37·8%. The percentage of women who were having their fourth or more pregnancy was 18·4% in 1950 compared with 16·8% in 1949.

There appears to be some increase in the proportion of pregnant women who were gainfully employed in work outside their own home as the following table shows :—

PERCENTAGE GAINFULLY EMPLOYED

	1949	1950		1949	1950
Primiparae	61·3	63·7	5th para	16·1	15·0
2nd para	19·9	20·4	6th and over	12·3	17·5
3rd para	15·3	15·9	All parities	33·6	34·4
4th para	13·7	14·6			

Live Births

The live birth rate was 16·8 per 1,000 population. This shows a further substantial fall from the figure of 18·1 in 1949.

The illegitimate birth rate per 1,000 live births was 51.

<i>Illegitimate births per 1,000 live births</i>				<i>Illegitimate births per 1,000 live births</i>			
1943	.....	.....	57·6	1947	.....	.....	54·7
1944	.....	.....	64·1	1948	.....	.....	54·1
1945	.....	.....	92·0	1949	.....	.....	50·1
1946	.....	.....	67·6	1950	.....	.....	51·5

Stillbirths

There were 444 stillbirths, of whom 425 were legitimate and 19 illegitimate. The stillbirth rate was 23·0 per 1,000 live and stillbirths. This shows a rise over the figure for 1949. The legitimate stillbirth rate was 23·8 and the illegitimate 19·6.

<i>Rate per 1,000 total births</i>				<i>Rate per 1,000 total births</i>			
1943	.....	.....	27	1947	.....	.....	24
1944	.....	.....	25	1948	.....	.....	22
1945	.....	.....	25	1949	.....	.....	22
1946	.....	.....	25	1950	.....	.....	23

DOMICILIARY CONFINEMENTS

<i>Cause of death</i>	<i>Total</i>	<i>Responsibility for A.N. care</i>			
		<i>Midwife</i>	<i>General Prac- titioner</i>	<i>Hospital booked</i>	<i>No. A.N. care</i>
(1) <i>Deaths occurring before labour :</i>					
Known causes :					
Toxaemia	5	1	3	1	—
Syphilis	—	—	—	—	—
Rhesus incompatibility	2	1	1	—	—
Other maternal conditions	4	—	4	—	—
Separation of placenta	1	—	1	—	—
Foetal deformity	11	3	7	1	—
Other conditions	6	1	5	—	—
Unknown causes	32	6	20	4	2
	61	12	41	6	2

Responsibility for A.N. care

<i>Cause of death</i>	<i>Total</i>	<i>Midwife</i>	<i>General prac- titioner</i>	<i>Hospital No booked</i>	<i>No A.N. care</i>
-----------------------	--------------	----------------	---------------------------------------	-------------------------------	-------------------------

(2) *Deaths occurring during labour :*

Antenatal causes :

Toxaemia	2	—	1	1	—
Syphilis	—	—	—	—	—
Rhesus incompatibility	—	—	—	—	—
Other maternal conditions	1	—	1	—	—
Separation of placenta	1	—	1	—	—
Foetal deformity	6	4	2	—	—

Intranatal causes :

Breech	11	2	8	1	—
Other difficult labours	7	4	3	—	—
Other intranatal causes	7	1	6	—	—

Precipitate labour	1	—	1	—	—
--------------------------	---	---	---	---	---

Unknown causes	16	5	9	—	2
----------------------	----	---	---	---	---

52	16	32	2	2
----	----	----	---	---

HOSPITAL CONFINEMENTS

Cause of death

(1) *Deaths occurring before labour :*

Known causes :

Toxaemia	39	1	9	28	1
Syphilis	1	—	—	1	—
Rhesus incompatibility	13	—	—	13	—
Other maternal conditions	6	1	1	4	—
Separation of placenta	10	3	2	5	—
Foetal deformity	22	1	3	17	1
Other conditions	20	3	2	13	2

Unknown causes	47	2	10	33	2
----------------------	----	---	----	----	---

158	11	27	114	6
-----	----	----	-----	---

Responsibility for A.N. care

<i>Cause of death</i>	<i>Total</i>	<i>Midwife</i>	<i>General prac- titioner</i>	<i>Hospital No A.N. booked care</i>	<i>care</i>
<i>(2) Deaths occurring during labour :</i>					
<i>Antenatal causes :</i>					
Toxaemia	23	3	5	14	1
Syphilis	1	—	—	1	—
Rhesus incompatibility	—	—	—	—	—
Other maternal conditions	6	—	2	4	—
Separation of placenta	11	2	4	5	—
Foetal deformity	19	2	3	14	—
<i>Intranatal causes :</i>					
Breech	25	2	4	18	1
Other difficult labours	36	2	4	27	3
Other intranatal causes	31	3	7	20	1
Conjoined twins	2	—	—	2	—
Precipitate labour	2	—	—	2	—
Unknown causes	6	—	2	4	—
	162	14	31	111	6

NURSING HOMES (6 cases)

<i>Cause of death</i>	<i>Responsibility for antenatal care</i>
<i>Deaths occurring before labour (Antenatal)</i>	
Cord	General Practitioner
Malaria	" "
Placental degen.	" "
<i>Deaths during labour (Intranatal)</i>	
Cord	General practitioner
Difficult labour	" "
Unknown	" "

In addition, there were 5 stillbirths which occurred outside the City, the details of which are unknown.

An investigation has been made with a view to ascertaining why there has been a rise of 1.3 per 1,000 in the stillbirth rate. Although the figures for the parity of stillbirths in 1949 are not available, it is reasonable to assume that there has been no greater variation than in the case of the live births where the figures are available, i.e., a slight fall in the case of primiparae (—0.9%) and a slightly larger increase in the case of women with four or more pregnancies (+1.2%). Only 24% of stillbirths occurred at home as compared with 30% in 1949. In both years the proportion of hospital stillbirths admitted as emergencies was 30%.

The stillbirth rate for home deliveries showed an improvement—6·0 per 1,000 in 1950 compared with 6·6 per 1,000 in 1949. One quarter of the rise in the number of stillbirths is accounted for by six stillbirths in nursing homes among 704 births, compared with one stillbirth among 920 births in 1949. However, the numbers are too small to justify statistical comparison. The rest of the increase is accounted for mainly by a rise in the stillbirth rate following toxæmia and from unknown causes. There has been a slight increase in the incidence of toxæmia during the year. There does not appear to have been any diminution in the amount of antenatal care as the table given below shows.

ANTENATAL CARE

<i>Number of visits</i>	1949	1950
1—2 visits	3·9	3·3
3—5 visits	15·0	14·3
6—8 visits	32·1	30·3
9 or more visits	48·5	51·9
No antenatal care	0·4	0·5

In fact the rise in the stillbirth rate associated with toxæmia is practically confined to the booked hospital cases as the stillbirth rate in this group among emergency admissions shows a fall and among domiciliary stillbirths a very slight rise.

Infant Mortality

There were 568 infant deaths, of whom 532 were legitimate and 36 illegitimate. The infant death rate was 30 per 1,000 live births. The legitimate infant death rate was 30 and the illegitimate 37.

<i>Birmingham</i>			<i>England and Wales</i>		
<i>Birmingham</i>			<i>Birmingham and Wales</i>		
1943	55	49	1947	41	41
1944	42	46	1948	42	34
1945	49	46	1949	31	32
1946	40	43	1950	30	30

Cause of Death

The causes of infant death are shown in the following table :—

DEATHS FROM STATED CAUSES IN DAYS, WEEKS AND MONTHS UNDER ONE YEAR OF AGE																						
Cause of death	DAYS										Total under 28 days	MONTHS										Total under 1 year
	under 1	1	2	3	4	5	7-14-		21-	28 days and under 2		2	3	4	5	6	7	8	9	10	11	
							13	20															27
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Whooping Cough	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Influenza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tuberculous Meningitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Abdominal Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other Tuberculous Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Rickets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cerebro-Spinal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Meningitis (not Tuberculous)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Convulsions	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Bronchitis	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pneumonia (all forms)	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Gastritis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Diarrhoea, Enteritis, etc.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Congenital Malformations	18	7	14	3	2	2	1	5	12	2	66	—	—	—	—	—	—	—	—	—	—	
Premature Birth	73	21	20	13	4	3	1	5	1	1	142	—	—	—	—	—	—	—	—	—	—	
Atrophy, Debility and Marasmus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Atelectasis	9	4	2	—	—	—	—	—	—	—	15	—	—	—	—	—	—	—	—	—	—	
Injury at birth	42	8	12	4	5	1	—	6	—	—	78	—	—	—	—	—	—	—	—	—	—	
Suffocation (overlying)	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	
Other Causes	7	5	3	7	4	—	—	1	2	2	31	—	—	—	—	—	—	—	—	—	—	
Otitis Media	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	
All causes	150	47	52	27	18	6	4	25	23	10	362	—	—	—	—	—	—	—	—	—	—	

The following comparative table shows the infant death rate from various causes :—

	1945	1946	1947	1948	1949	1950
Total infant death rate	49	40	41	32	31	30
Respiratory disease	11.2	8.1	8.6	6.0	4.7	4.9
Diarrhoea and enteritis	7.3	6.4	7.0	3.1	2.9	2.0
Congenital malformations	5.7	4.8	5.1	4.7	5.2	5.1
Prematurity	10.5	7.8	5.9	5.3	7.4	7.6
Atrophy, debility, marasmus and atelectasis	1.8	2.4	2.6	1.5	1.6	0.8
Injury at birth	2.6	4.6	4.8	4.9	2.7	4.2
Other causes	9.9	5.9	6.6	6.5	6.1	5.3

Neonatal Death Rate

The number of neonatal deaths was 362, of whom 340 were legitimate and 22 illegitimate. The neonatal death rate was 19.2 per 1,000 live births. The legitimate neonatal death rate was 19.0 and the illegitimate 22.7.

	Rate per 1,000 live births		Rate per 1,000 live births
1943	25.7	1947	20.9
1944	22.2	1948	18.0
1945	22.5	1949	17.7
1946	22.1	1950	19.2

The following is an analysis of responsibility for antenatal care in relation to these neonatal deaths :—

		Responsibility for A.N. care					
		Total	Domi- ciliary midwife	General prac- titioner	Hos- pital booked	No A.N. care	A.N. care unknown
<i>Antenatal conditions :</i>							
Toxaemia	.....	35	5	8	20	—	2
Syphilis	.....	—	—	—	—	—	—
Rhesus incompatibility		6	—	1	5	—	—
Separation of placenta		36	9	13	12	2	—
Maternal conditions		14	1	3	8	—	2
Other	.....	6	—	2	4	—	—
<i>Intranatal conditions :</i>							
Breech	.....	10	—	3	7	—	—
Other causes	.....	64	11	28	22	1	2
<i>Postnatal conditions in child :</i>							
Infection	.....	24	4	15	5	—	—
Other	.....	21	4	7	10	—	—
Foetal abnormality	.....	75	13	19	41	—	2
Prematurity only	.....	67	8	23	30	3	3
Cause unknown	.....	4	—	—	—	—	4
		362	55	122	164	6	15

This increase in the neonatal death rate would appear to be associated mainly with intranatal causes as the following table shows : —

NEONATAL DEATH RATE						1949	1950
Antenatal conditions	.....	.....	.....	.....	.....	5.2	5.1
Intranatal conditions	.....	.....	.....	.....	.....	2.9	3.9
Postnatal conditions in child	.....	.....	.....	.....	.....	2.2	2.3
Foetal abnormalities	.....	.....	.....	.....	.....	3.6	3.9
Prematurity only	.....	.....	.....	.....	.....	3.2	3.5
Unknown	.....	.....	.....	.....	.....	0.6	0.5

When the intranatal conditions are analysed in more detail it is found that the part of the neonatal death rate associated with breech delivery was 0.53 in 1950 compared with 0.24 in 1949. Other intranatal conditions gave a corresponding neonatal death rate of 3.4 in 1950 and 2.7 in 1949.

The responsibility for antenatal care preceding all neonatal deaths was as follows :—

						<i>Partition of Neonatal death rate</i>	
						1949	1950
<i>Responsibility for antenatal care :</i>							
Midwife and centre	.....	.....	.....	.....	.....	2.8	2.9
General practitioner	.....	.....	.....	.....	.....	5.7	6.4
Hospital booked	.....	.....	.....	.....	.....	7.6	8.7
No antenatal care or unknown	.....	.....	.....	.....	.....	1.6	1.2
						<hr/>	<hr/>
						17.7	19.2
						<hr/>	<hr/>

The responsibility for antenatal care in relation to those neonatal deaths which were associated with intranatal causes was as follows :—

						<i>Intranatal causes Partition of Neonatal death rate</i>	
						1949	1950
<i>Responsibility for antenatal care :</i>							
Midwife and centre	.....	.....	.....	.....	.....	0.5	0.6
General practitioner	.....	.....	.....	.....	.....	0.9	1.6
Hospital booked	.....	.....	.....	.....	.....	1.4	1.5
No antenatal care or unknown	.....	.....	.....	.....	.....	0.1	0.2

There was also some increase in the part of the neonatal death rate associated with toxæmia which showed a rise from 1.4 to 1.8. In this instance the cases for which the general practitioners were responsible for antenatal care showed no rise in the neonatal death rate associated with toxæmia in contrast to the cases for which the hospital and the midwife and centre were responsible and which both showed an increase.

The following tables show the influence on the neonatal death rate of adequate antenatal care, the heavy neonatal death rate associated with certain antenatal complications such as non-toxic antepartum hæmorrhage and toxæmia and with cæsarean section and breech delivery. The babies of mothers gainfully employed during pregnancy tend to have a higher neonatal mortality rate than the babies of mothers not so employed.

INFLUENCE OF ANTENATAL CARE ON THE NEONATAL MORTALITY RATE

<i>Antenatal care</i>				<i>Live</i>	<i>Neonatal</i>	<i>Neonatal</i>
<i>Hospital</i>				<i>births</i>	<i>deaths</i>	<i>Mortality</i>
						<i>Rate</i>
1 or 2 visits	.....	.....	.....	160	6	37·5
3—5 visits	.....	.....	.....	753	37	49·1
6—8 visits	.....	.....	.....	1,559	44	28·2
9 or more visits	.....	.....	.....	3,737	52	13·9
None	.....	.....	.....	2	—	—
Unknown	.....	.....	.....	1,142	20	17·5
Total	.....	.....	.....	7,353	159	21·6

<i>Private Practitioners</i>						
1 or 2 visits	.....	.....	.....	33	2	—
3—5 visits	.....	.....	.....	111	4	—
6—8 visits	.....	.....	.....	306	4	—
9 or more visits	.....	.....	.....	285	5	—
None	.....	.....	.....	1	—	—
Unknown	.....	.....	.....	272	5	—
Total	.....	.....	.....	1,008	20	19·8

<i>Maternity Service General Practitioners</i>						
1 or 2 visits	.....	.....	.....	157	7	—
3—5 visits	.....	.....	.....	663	24	36·2
6—8 visits	.....	.....	.....	1,533	24	15·7
9 or more visits	.....	.....	.....	2,135	31	14·5
None	.....	.....	.....	1	—	—
Unknown	.....	.....	.....	1,061	12	11·3
Total	.....	.....	.....	5,550	98	17·7

<i>Antenatal care</i>	<i>Live births</i>	<i>Neonatal deaths</i>	<i>Neonatal Mortality Rate</i>
<i>Midwife and Centre</i>			
1 or 2 visits	186	9	—
3—5 visits	700	13	—
6—8 visits	1,316	15	11·4
9 or more visits	1,929	18	9·3
None	—	—	—
Unknown	107	1	—
Total	4,238	56	13·2
<i>None</i>	74	6	—
<i>Unknown</i>			
1 or 2 visits	1	—	—
3—5 visits	—	—	—
6—8 visits	1	—	—
9 or more visits	14	—	—
Unknown	92	10	—
Total	108	10	—

ANTENATAL DISEASES AND COMPLICATIONS AND NEONATAL MORTALITY RATES

<i>Antenatal disease or complications</i>	<i>Live Births</i>	<i>Neonatal deaths</i>	<i>Neonatal Mortality rate</i>
Toxaemia	1,076	38	35·3
Wasserman reaction positive	59	3	—
Rubella	2	—	—
Non-toxic antepartum haemorrhage	202	29	143·6
Pyelitis	158	6	—
Anaemia	351	7	—
Varicose veins	756	11	—
Other	1,494	45	30·1
Combination of above	663	27	40·7
Rhesus negative : agglutinins present : no other complication			
known	54	5	—
No antenatal disease or complication	11,788	157	13·3
Antenatal record unknown.....	1,728	21	—
Total	18,331	349	19·0

NEONATAL DEATH RATES ASSOCIATED WITH THE VARIOUS TYPES OF LABOUR

	<i>Live Births</i>	<i>Neonatal deaths</i>	<i>Neonatal Mortality rate</i>
Spontaneous onset— spontaneous delivery	15,051	268	17·8
Spontaneous onset— instrumental delivery	499	13	—
Medical induction— spontaneous delivery	226	4	—
Medical induction— instrumental delivery	41	1	—
Surgical induction— spontaneous delivery	620	19	30·6
Surgical induction— instrumental delivery	60	4	—
Medical and surgical induction— spontaneous delivery	105	6	—
Medical and surgical induction instrumental delivery	17	1	—
Cæsarean section	362	24	66·3
Other	51	3	—
Unknown	1,299*	6	—
TOTAL	18,331	349	19·0

* 689 of the 1,299 live births about which there was no information occurred in nursing homes.

Neonatal mortality rates by presentation

	<i>Live births</i>	<i>Neonatal deaths</i>	<i>Neonatal mortality rate</i>
Normal vertex	15,223	225	14·8
Occipito-posterior	799	15	18·8
Brow	21	1	—
Face	49	2	—
Breech	507	60	118·3
Other presentation due to transverse lie	35	2	—
Other	39	11	—
Unknown*	1,658	33	—
	18,331	349	19·0

* 689 of the 1,658 live births about which there was no information occurred in nursing homes.

The influence of the gainful employment of the mother on the neonatal death rate is shown below :—

Parity	<i>Mother gainfully employed during pregnancy</i>			<i>Mother not gainfully employed during pregnancy</i>		
	<i>Live births</i>	<i>Neonatal deaths</i>	<i>Neonatal mortality rate</i>	<i>Live births</i>	<i>Neonatal deaths</i>	<i>Neonatal mortality rate</i>
0	4,101	70	17.1	2,335	38	16.3
1	1,037	20	19.3	4,063	64	15.8
2	450	8	17.8	2,389	38	15.9
3	212	7	34.0	1,243	27	22.2
4	114	4		649	13	
5	144	5		898	22	
and over all parities	6,058	114	18.8	11,577	202	17.5

Death Rate—4 weeks to 1 year

The death rate in the period 4 weeks to 1 year was 10.9.

<i>Death rate per 1,000 live births</i>				<i>Death rate per 1,000 live births</i>			
1943	.....	.....	29.3	1947	.....	.....	19.5
1944	.....	.....	19.8	1948	.....	.....	13.6
1945	.....	.....	26.5	1949	.....	.....	13.1
1946	.....	.....	17.9	1950	.....	.....	10.9

The following is an analysis of the death rate in this age period :—

	1949	1950
Measles	0.1	0.2
Whooping cough	0.6	0.6
Influenza	0.2	—
Tuberculosis	0.2	0.2
Meningitis (non-tuberculous)	0.3	0.2
Convulsions	0.1	0.2
Respiratory diseases	4.1	3.9
Diarrhoea and enteritis	2.9	1.8
Congenital malformations	1.9	1.6
Otitis media	0.3	0.3
Other causes	2.4	1.9
	13.1	10.9

Legitimacy in relation to Infant Death Rate

The illegitimate infant mortality rate per 1,000 illegitimate births was 37 whilst the corresponding rate for legitimate births was 30.

	<i>Legitimate infant death rate</i>	<i>Illegitimate infant death rate</i>		<i>Legitimate infant death rate</i>	<i>Illegitimate infant death rate</i>
1943	56	52	1947	39	64
1944	41	62	1948	31	44
1945	49	56	1949	30	40
1946	39	54	1950	30	37

The main causes of death in illegitimate infants compared with legitimate infants is shown in the following table :—

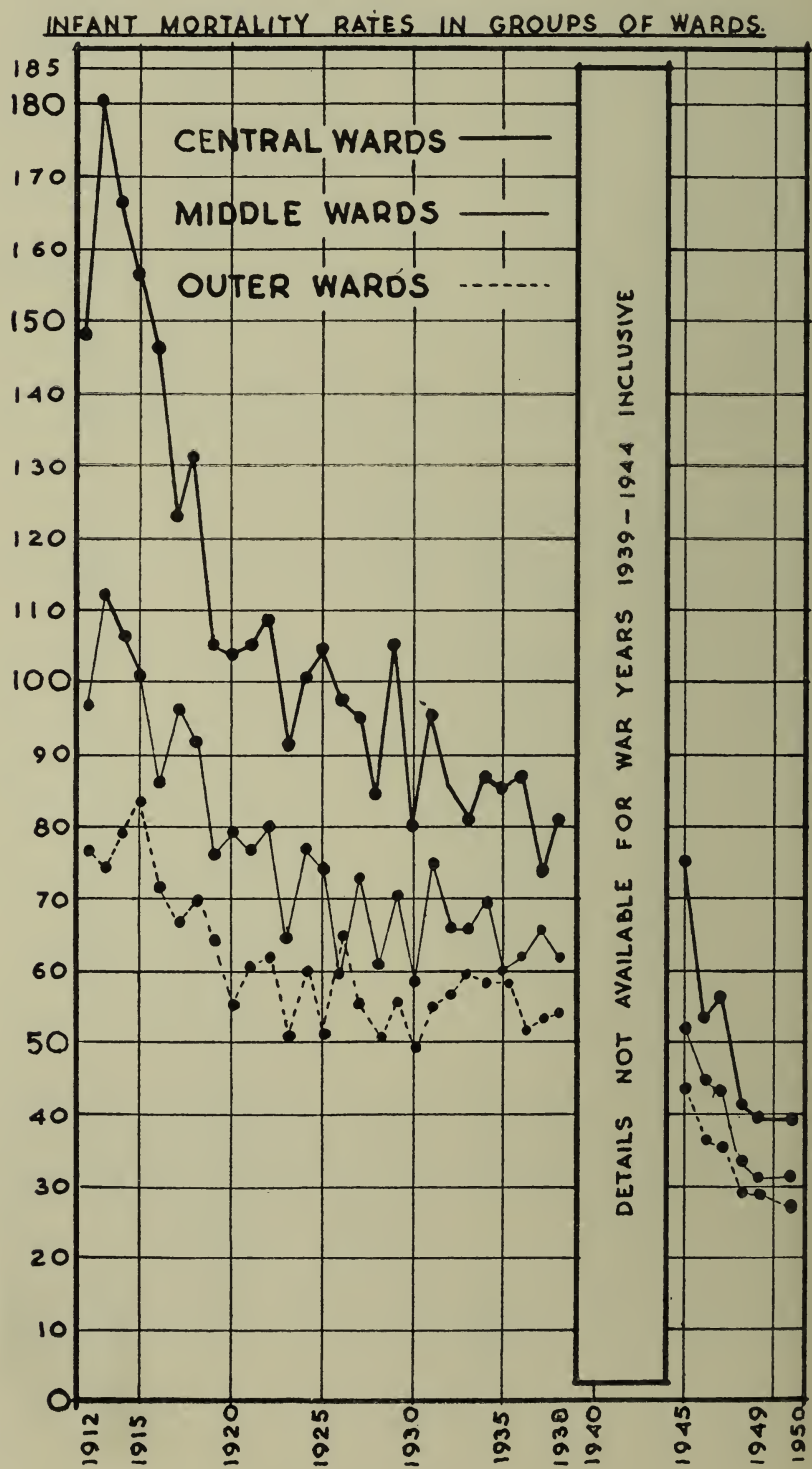
	Rate per 1,000							
	<i>Legitimate live births</i>				<i>Illegitimate live births</i>			
	1947	1948	1949	1950	1947	1948	1949	1950
Infectious disease	1.0	1.0	0.8	0.8	1.2	1.7	2.0	—
Tuberculosis	0.3	0.6	0.2	0.2	—	0.9	—	—
Respiratory disease	8.3	5.8	4.8	4.8	14.5	7.8	4.0	6.2
Diarrhoea and enteritis	6.5	3.0	2.9	2.0	15.3	4.3	3.0	3.1
Congenital malformations	5.1	4.8	5.1	5.1	5.3	4.3	7.0	5.2
Premature birth	5.6	5.3	7.5	7.5	10.7	4.3	6.0	9.3
Atrophy, debility, marasmus and atelectasis	2.5	1.4	1.7	0.9	3.8	3.5	1.0	—
Injury at birth	4.7	4.9	2.6	4.1	5.3	4.3	5.0	6.2
Other causes	5.1	4.1	4.7	4.4	7.6	13.0	12.0	7.2

Infant Mortality in Wards of the City

The appended table shows the infant mortality in the groups of wards of the City in 1950 :—

<i>Central Wards</i>		<i>Middle Ring</i>		<i>Outer Ring</i>	
St. Paul's	38	Lozells	46	Sheldon	30
Duddeston	46	Aston	28	Sandwell	36
Deritend	31	Washwood Heath	30	Handsworth	45
Market Hall	26	Saltley	27	Perry Barr	34
Ladywood	54	Small Heath	14	Erdington	32
		Sparkbrook	36	Stechford	34
		Balsall Heath	30	Yardley	8
		Edgbaston	19	Acocks Green	25
		Rotton Park	29	Hall Green	35
		All Saints	40	Sparkhill	38
		Gravelly Hill	21	Moseley and King's	
		Soho	45	Heath	17
				Selly Oak	31
				King's Norton	14
				Northfield	30
				Harborne	5
				Fox Hollies	25
				Springfield	17
				Brandwood	20
				Weoley	30
				Stockland Green	18
				Kingstanding	28
Average in 1950	39	Average in 1950	31	Average in 1950	27
Average in 1949	39	Average in 1949	31	Average in 1949	28
Average in 1948	41	Average in 1948	31	Average in 1948	28

The following diagram shows the fall in infant mortality in each of the three groups of wards during the past 38 years. The rates for the war years are not shown as during that time, for various reasons, the information at our disposal was not such as to enable us to arrive at accurate figures.



INFANT MORTALITY AND STILLBIRTH RATE ACCORDING TO WELFARE CENTRE DISTRICTS

	<i>Infant death rate</i>				<i>Stillbirth rate</i>			
	1947	1948	1949	1950	1947	1948	1949	1950
Acocks Green	27	34	20	26	26	16	21	29
Bromford	42	32	35	26	25	13	22	23
Carnegie	41	29	32	33	20	28	20	23
Erdington	27	30	17	23	28	25	28	24
Greet	28	18	26	32	27	23	15	16
Handsworth	36	39	25	42	20	21	14	27
Harborne	23	22	29	15	37	10	11	15
Hay Mills	37	29	19	10	22	18	11	20
Heath Mill Lane	40	36	38	23	20	19	62	17
Hope Street	50	26	42	31	27	23	21	27
Horrell Road	25	24	23	12	21	19	21	20
Irving Street	63	39	27	31	15	18	16	19
Kettlehouse	38	29	28	39	40	37	49	26
King's Heath	29	27	38	16	16	15	25	19
Kingstanding	44	24	16	16	17	23	23	25
Lancaster Street	48	48	44	44	20	37	18	24
Langley Road	40	39	31	24	22	21	12	19
Lansdowne Street	40	28	16	31	24	18	28	28
Lea Hall	39	27	27	27	16	23	29	17
Maypole	—	—	29	33	—	—	21	20
Monument Road	48	31	35	35	30	18	15	24
Northfield	39	21	23	29	26	22	27	24
Selly Oak	27	23	31	27	25	18	18	19
Stirchley	42	27	28	19	28	20	21	17
Stratford Road	47	29	36	26	18	28	14	16
Sutton Street	54	41	39	32	37	18	20	28
Tennal Road	47	26	20	8	7	25	27	16
Tower Hill	18	25	31	26	12	29	11	15
Treaford Lane	28	31	19	23	15	24	15	26
Trinity Road	25	44	26	43	20	20	23	25
Washwood Heath	45	39	26	33	20	16	24	34
Weoley Castle	37	33	12	14	15	15	30	21
Yardley Wood	27	15	35	18	16	17	22	23

For purpose of comparison of the districts with the lowest and highest infant death and stillbirth rates the five lowest have been grouped together (Group I) and the five highest (Group II) on page 117.

The districts with the lowest death rates show a marked improvement on the preceding year as far as the infant death rate is concerned but at the same time show a substantial increase in the stillbirth rate. On the other hand, the districts with the highest death rates show an infant death rate which has been almost stationary over the past three years and a stillbirth rate slightly less than in 1949.

GROUP I

Year	Total live births	Infant Mor- tality rate	Neo- natal death rate	Still- birth rate	Respi- ratory death rate	Diarr- hoea and Enteritis death rate	Prema- turity death rate	Birth injury death rate	Con- genital Mal- forma- tions
1950	2,073	12	8.7	19.3	1.4	1.0	3.9	1.0	3.4
1949	2,626	21	12.9	15.0	2.7	1.1	4.6	3.0	4.2
1948	3,693	21	13.3	18.3	4.9	0.3	3.8	3.5	3.2
1947	4,064	25	14.5	15.7	6.6	2.7	3.7	3.9	4.2

GROUP II

1950	3,021	40	20.9	28.1	7.9	2.6	7.3	4.0	6.6
1949	3,105	39	21.3	29.4	6.4	3.5	11.0	2.3	5.8
1948	4,497	40	22.2	24.9	7.8	4.9	7.3	5.1	6.0
1947	4,221	50	21.3	30.3	10.9	12.6	6.2	4.0	6.6

Maternal Mortality in Childbirth

The deaths of women due to pregnancy and child-bearing in Birmingham during 1950 were 16, which gave a maternal mortality rate, excluding 2 deaths following abortion, of 0.73 per 1,000 live and still births, or 0.74 per 1,000 live births, compared with 0.39 and 0.40 respectively in 1949.

Rate per 1,000 live and stillbirths (excluding abortions)			Rate per 1,000 live and stillbirths (excluding abortions)		
England and Wales			England and Wales		
Birmingham			Birmingham		
1943	1.35	1.84	1947	0.73	1.01
1944	0.95	1.53	1948	0.50	0.86
1945	1.21	1.46	1949	0.39	0.82
1946	0.64	1.24	1950	0.73	0.72

The responsibility for antenatal care in relation to these deaths was as follows :—

A. Deaths due to pregnancy and childbirth 16

Hospital—4 cases

The cause of death in these cases was sepsis (1) pulmonary embolism (2) postoperative haemorrhage (1).

Midwife and Centre—3 cases

The cause of death in these cases was sepsis (W.R.+) (1), toxæmia (1), caesarean section anaesthetic (anaemia), (1). All these cases were admitted to hospital as emergencies.

General Practitioner—5 cases

Four of these cases were admitted to hospital as emergencies as follows : pulmonary embolism (2), hyperemesis (1), and eclampsia (1). One case of pulmonary embolism died at home.

A. Deaths due to pregnancy and childbirth (*continued*)

No antenatal care—4 cases

One case died at home undelivered. The others were admitted as emergencies as follows : P.P.H. and sepsis following abortion (1), eclampsia (1), sepsis following abortion (1).

B. Deaths due to associated conditions 2

One of these cases which died from heart disease was booked for admission to hospital. In the other, the death was due to broncho-pneumonia. She had no antenatal care and was admitted to hospital as an emergency.

A. Deaths due to pregnancy and childbirth (16)

1. Not associated with a notifiable birth	.....	.....	.....	.....	4
Sepsis (pulmonary embolism)	.....	.....	.....	1	
Obstructed labour and sepsis (undelivered)	.....	.....	.....	1	
Abortion and post-partum haemorrhage	.....	.....	.....	1	
Septic incomplete abortion (criminal)	.....	.....	.....	1	
2. Associated with a notifiable birth					12
Sepsis				3	
Pulmonary embolism				4	
Caesarean section anaesthetic (anaemia)				1	
Toxaemia—					
Eclamptic				2	
Non-eclamptic	.....	.....	.....	2	

B. Deaths due to associated conditions (2)

1. Not associated with a notifiable birth	.....	.....	.....	.....	0
2. Associated with a notifiable birth	.....	.....	.....	.....	2
Broncho-pneumonia	.....	.....	.....	1	
Heart disease	.....	.....	.....	1	

A review of the circumstances of every case of maternal death makes it possible to estimate whether or not there was any avoidable factor, and in this respect the cases have been classified according to the following table :—

	<i>Pregnancy and childbirth</i>					<i>Associated conditions</i>
	<i>Toxaemia</i>	<i>Other obstet- rical causes</i>	<i>Haem- orrhage</i>	<i>Sepsis</i>	<i>Septic abortion</i>	
	(4)	(5)	(1)	(5)	(1)	(2)
Lack of co-operation of patient or friends	2	—	—	2	1	1
Safety only by avoidance or termination of pregnancy	—	—	—	—	—	—
No avoidable factor	2	4	—	3	—	1
No. of cases where assessment not possible	—	1	1	—	—	—

No antenatal care	4
Inadequate antenatal care	2
Adequate antenatal care	12
TOTAL	18

Place of death (including abortions)	
Death in hospital	16
Death at home	2
	18

Nature of delivery (including abortions)	
Natural	7
Instrumental	3
Caesarean section	4
Undelivered	2
Abortion (mode of delivery unknown)	1
Hysterotomy	1
Ectopic	—
	18

Comparison with Previous Years

A comparison of the maternal death rate figures in the principal groups with those of previous years is shown hereunder :—

DEATH RATE PER 1,000 LIVE AND STILLBIRTHS :

<i>Year</i>	<i>Abortion</i>	<i>Sepsis</i>	<i>Toxaemia</i>	<i>Haemorrhage</i>	<i>Other puerperal causes</i>	<i>Total due to puerperal causes</i>	<i>Maternal deaths due to "associated conditions"</i>
1938	0.55	0.67	0.72	0.67	0.28	2.88	1.16
1939	0.66	0.33	0.55	0.50	0.44	2.48	0.44
1940	0.56	0.39	0.62	0.23	0.34	2.14	0.45
1941	0.67	0.24	0.49	0.24	0.79	2.43	0.73
1942	0.57	0.47	0.57	0.26	0.57	2.45	0.78
1943	0.43	0.43	0.48	0.29	0.05	1.69	0.53
1944	0.39	0.30	0.26	0.13	0.26	1.34	0.69
1945	0.29	0.29	0.49	0.05	0.29	1.41	0.44
1946	0.17	0.04	0.30	0.13	0.21	0.85	0.47
1947	0.20	0.12	0.25	0.04	0.37	0.98	0.57
1948	—	0.09	0.18	—	0.23	0.50	0.50
1949	0.05	—	0.39	—	0.05	0.49	0.68
1950	0.10	0.26	0.16	0.05	0.26	0.83	0.10

Rates in italics indicate here, as elsewhere, that they are calculated on less than 20 instances.

The following table gives the age grouping of maternal deaths since 1940 :—

Year	Under					40 years
	20 years	20-25 yrs.	25-30 yrs.	30-35 yrs.	35-40 yrs.	and over
1941	0	7	12	8	20	5
1942	3	13	15	17	12	2
1943	2	9	8	13	7	7
1944	1	10	9	15	8	4
1945	0	6	9	10	11	2
1946	2	4	4	6	12	3
1947	1	6	7	7	12	5
1948	0	4	6	4	6	2
1949	0	3	6	8	5	2
1950	0	2	2	6	6	2
	9	64	78	94	99	34

Puerperal Pyrexia and Puerperal Sepsis

Out-of-City Cases	8
Cancellation of notification	29
Birmingham City cases	71

(1) Due to infection of the genital tract 21

Uterine infection	11
Subinvolution	5
Septic abortion	—
Retained products	3
Perineal infection	—
Puerperal sepsis	2
	21

(2) Due to extra-genital infection 43

Urinary infection	10
Mastitis	10
Influenza	10
Upper respiratory infection	6
Chest infection	5
Thrombophlebitis	2
Skin sepsis	—
	43

(3) Other causes 7

Ophthalmia Neonatorum

During 1950 there were 627 cases of ophthalmia neonatorum (so called) notified, none of which were treated in hospital.

No impairment of vision occurred in any case reported to the department.

Pemphigus Neonatorum

The one case of pemphigus neonatorum which occurred during 1950 was nursed at home by its mother, and recovered.

PREMATURITY

We are indebted to Dr. V. M. Crosse, Paediatrician, Birmingham Regional Hospital Board, for her co-operation in preparing this section of the report.

During 1950, 1,619 premature births, i.e., babies with a birth weight of $5\frac{1}{2}$ lbs. or less, occurred in Birmingham to Birmingham residents (including births to Birmingham residents in Marston Green Hospital). Of these 151 were stillborn and 1,468 liveborn. These 1,619 premature births were investigated by Dr. Crosse. The 1,468 live births showed a weight distribution as below :—

Up to 2 lbs.	.....	37 babies = 2.5% of the total
2—3 lbs.	.....	91 babies = 6.2% „ „
3—4 lbs.	.....	157 babies = 10.7% „ „
4—5 lbs.	.....	550 babies = 37.5% „ „
5— $5\frac{1}{2}$ lbs.	.....	633 babies = 43.1% „ „

Incidence

Premature babies formed 9.0% of all births, live and still, and 8.0% of live births only. The incidence of premature births in the various categories of births and deaths is given below for the years 1943–50 :—

Incidence of Premature Birth as a percentage of :

	1943	1944	1945	1946	1947	1948	1949	1950
Total births	6.0	6.3	7.2	7.9	7.9	7.6	8.2	9.0
Stillbirths	41.4	44.2	44.8	41.3	47.1	47.0	45.6	51.8
Live births	5.4	5.4	6.2	7.1	6.9	6.7	7.3	8.0
Neonatal deaths	58.7	59.3	59.2	54.2	56.9	59.6	60.9	59.5
Deaths (1–12 months)	—	—	—	—	16.5	21.2	16.7	20.6
Total infant mortality	—	—	—	—	34.4	42.9	42.2	45.5

The percentages relating to the death rate 1–12 months and the total infant mortality rate are not available for the years 1943–1946.

Mortality

The mortality rates from the different causes of death are given below for (1) the premature births, and (2) babies weighing over $5\frac{1}{2}$ lbs. at birth, the latter being added for comparison so that the true hazard of prematurity can be realised.

Stillbirths

STILLBIRTH RATE BY CAUSE OF DEATH FOR PREMATURE BIRTHS AND BABIES OVER 5½ LBS.

<i>Cause of death</i>	<i>Deaths of premature babies (per 1,000 premature births live and still)</i>	<i>Deaths of babies over 5½ lbs. (per 1,000 births over 5½ lbs. live and still)</i>
<i>Antenatal deaths :</i>		
(a) Known causes :		
Toxaemia	21.2	0.5
Syphilis	0.6	—
Rhesus incompatibility	5.3	0.3
Other maternal conditions	4.1	0.2
Separation of placenta	5.3	0.2
Foetal deformity	14.1	0.5
Other conditions	11.8	0.5
(b) Unknown	27.1	1.9
<hr/>		
Total antenatal deaths	89.5	4.1
<i>Intranatal deaths :</i>		
(a) Antenatal causes :		
Toxaemia	10.6	0.5
Syphilis	—	0.1
Rhesus incompatibility	—	—
Other maternal conditions	1.7	0.2
Separation of placenta	3.5	0.5
Foetal deformity	9.4	0.5
(b) Intranatal causes :		
Breech presentation	4.7	1.7
Difficult labour	4.7	2.3
Other	6.5	1.6
(c) Unknown	4.8	1.0
<hr/>		
Total intranatal deaths	45.9	8.4
<hr/>		
Total stillbirth rate	135.4	12.5
<hr/>		

The greater proportion of infant deaths occurring in utero before the onset of labour are classed as premature births because they weigh 5½ lbs. or less. This is not, however, a true picture of the causation of stillbirth in these cases which is, in fact, attributable to the antenatal causes shown in the table above.

On the other hand, the increased risk of death during labour from intranatal causes is a result of the prematurity and arises from a greater chance of breech presentation, more risk of cord complications and greater susceptibility to intracranial birth injury.

In both groups of babies, antenatal deaths have increased, while deaths during labour have decreased.

Infant Mortality Rate

For 1950 the premature infant mortality rate was 174 per 1,000 premature births, and 18 per 1,000 for babies born weighing over 5½ lbs. This is a new low record for both groups.

Neonatal Mortality

All neonatal mortalities have been investigated in order to discover the primary factor, which eventually led to each death, and the results are shown in the following table :—

NEONATAL DEATH RATES FOR PREMATURE BABIES AND BABIES OVER 5½ LBS.

<i>Primary factor</i>	<i>Death rates for premature babies (per 1,000 live premature births)</i>	<i>Death rates for babies over 5½ lbs. (per 1,000 live births over 5½ lbs.)</i>
Antenatal causes :		
Toxaemia	22.4	0.1
Syphilis	—	—
Rhesus incompatibility	0.7	0.3
Other maternal conditions	9.6	0.1
Separation of placenta	23.2	0.1
Other	2.0	0.1
Intranatal causes :		
Breech	2.0	0.4
Difficult labour	1.4	1.3
Other causes	18.4	0.8
Postnatal causes :		
Infection	4.8	1.1
Other	2.7	0.9
Foetal deformity	10.9	3.4
Prematurity only	47.7	—
TOTAL neonatal death rates	145.8	8.6

As in the case of stillbirths, the greater proportion of neonatal deaths are classed as premature births because they weigh $5\frac{1}{2}$ lbs. or less, but the deaths occurring among premature infants and attributed to antenatal causes in the table above are, in fact, due to these causes and not to a prematurity which is merely the result of these causes. On the other hand, as in the case of stillbirths, the prematurity itself increases the risk of death from intranatal causes, postnatal causes and prematurity only. During 1950 the neonatal death rate for infants weighing over $5\frac{1}{2}$ lbs. rose, while that for premature infants reached a new low level. The risk of neonatal death was nearly seventeen times greater for premature infants than for infants over $5\frac{1}{2}$ lbs. at birth.

NEONATAL DEATHS (PER CENT.) IN THE VARIOUS BIRTHWEIGHT GROUPS

	1945	1946	1947	1948	1949	1950
<i>Birth weight</i>	(1,222 babies)	(1,560 babies)	(1,648 babies)	(1,431 babies)	(1,410 babies)	(1,468 babies)
Up to 2 lbs.	100.0	100.0	93.0	97.2	100.0	100.0
2—3 lbs.	80.0	77.4	71.1	75.3	74.4	64.8
3—4 lbs.	45.2	35.2	33.8	35.2	26.4	24.2
4—5 lbs.	14.0	9.2	7.6	11.0	8.9	10.7
5— $5\frac{1}{2}$ lbs.	6.7	3.4	6.0	3.2	4.0	3.3
All weights to $5\frac{1}{2}$ lbs.	21.1	17.3	16.8	16.0	14.9	14.6

This table shows the decrease in the neonatal death rate in each weight group as between 1945 and 1950, though there has been an upward movement in the 4–5 lb. group in 1950.

It is of interest to note the age at death of premature babies and of infants over $5\frac{1}{2}$ lbs. who died during the first four weeks of life :—

<i>Age at death</i>	<i>Premature babies</i>		<i>Babies over $5\frac{1}{2}$ lbs.</i>	
	<i>per cent. of deaths</i>	<i>per cent. of live births</i>	<i>per cent. of deaths</i>	<i>per cent. of live births</i>
Less than 24 hours	46.7	6.8	29.7	0.26
24—48 hours	13.5	2.0	12.4	0.10
48 hours to 1 week	31.8	4.6	29.6	0.26
1—2 weeks	5.6	0.8	9.7	0.08
2—3 weeks	1.9	0.3	12.4	0.11
3—4 weeks	0.5	0.1	6.2	0.05
All ages to 4 weeks	100.0	14.6	100.0	0.86

No less than 46.7% of the premature infant deaths occur during the first 24 hours after birth and 92.0% during the first week ; while the corresponding figures for babies weighing over $5\frac{1}{2}$ lbs. at birth are 29.7% and 71.7%.

Death Rate from 1-12 months

Deaths at ages over 4 weeks have also been divided into premature babies, and those over 5½ lbs. at birth ; and the following table shows the relative risks of death from each important cause for the two groups.

DEATHS OVER 4 WEEKS AND UNDER 1 YEAR

<i>Cause of death</i>	<i>Premature babies (Rate per 1,000 premature live births)</i>	<i>Babies over 5½ lbs. (Rate per 1,000 live births over 5½ lbs.)</i>
Infections :		
Respiratory	10.9	3.8
Digestive	5.5	1.5
Other	3.4	2.1
Foetal deformity	5.4	1.2
Other causes	3.4	1.0
TOTAL death rate 4 weeks—1 year	28.6	9.6

This table shows that the relatively high death rate from infections continues in premature infants even after the first four weeks of life. The high death rate from deformities in premature infants is due to the high incidence of prematurity in cases of deformity ; the prematurity being the result, and not the cause, of the deformity.

The following table shows the history of the 1,410 premature babies born alive in Birmingham during 1949.

FOLLOW-UP TO 1 YEAR. 1410 PREMATURE BABIES BORN IN 1949.

	<i>Up to 2 lbs.</i>	<i>2—3 lbs.</i>	<i>3—4 lbs.</i>	<i>4—5 lbs.</i>	<i>5—5½ lbs.</i>	<i>All weights to 5½ lbs.</i>
(1) Live births	30	86	178	497	619	1,410
(2) Neonatal deaths	30	64	47	44	25	210
(3) Alive at 4 weeks	—	22	131	453	594	1,200
(4) Left City	—	1	5	13	31	50
(5) Untraced at 1 year	—	—	3	7	15	25
(6) Traced to death or 1 year	—	21	123	433	548	1,125
(7) Died after 4 weeks and before 1 year	—	1	6	19	16	42
Per cent. of (6)	—	4.8	4.9	4.4	2.9	3.7
(8) Alive at 1 year	—	20	117	414	532	1,083
(9) Abnormalities found in children alive at 1 year :						
Up to 3 pounds	1 blind, 1 hernia.					
3—4 pounds	4 hernia, 2 squint, 1 infantile paralysis.					
4—5 pounds	1 blind, 2 squint, 1 cardiac, 3 hernia, 3 cleft palate, 1 microcephalic, 1 mongol.					
5—5½ pounds	1 squint, 1 cleft palate, 2 cardiac, 4 hernia, 1 con- genital hip, 4 talipes, 1 mongol, 2 backward.					

Fate of Premature Infants born at home during 1950

The results obtained are shown in the following table :—

PREMATURE BIRTHS BY PLACE OF CARE, BIRTH WEIGHT AND SURVIVAL

Place of Care	3 lbs. 13 ozs. or less			3 lbs. 14 ozs.—4 lbs. 6 ozs.			4 lbs. 7 ozs.—5 lbs. 8 ozs.			Total of 5½ lbs. or less		
	Live births	Neo-natal deaths	Neo-natal Mortality rate	Live births	Neo-natal deaths	Neo-natal Mortality rate	Live births	Neo-natal deaths	Neo-natal Mortality rate	Live births	Neo-natal deaths	Neo-natal Mortality rate
1. Born and nursed at home	16	14	875.0	15	1	66.6	337	6	17.8	368	21	57.1
2. Born at home and transferred to hospital	50	24	480.0	35	5	142.9	74	15	202.7	159	44	276.7
3. Born and nursed in hospital	155	86	554.8	116	21	181.0	600	32	53.3	871	139	159.6
4. Born in nursing home	1	—	—	5	—	—	25	1	—	31	1	—
All cases	222	124	558.6	171	27	157.9	1,036	54	52.1	1,429*	205	143.5

* Excluding 2 twins and 1 single birth, exact weight unknown, born and nursed B.M.H., neonatal deaths—gestation period twins 29 weeks, single birth 38 weeks.

In the first group of these babies weighing 3 lbs. 13 ozs. or less, 76% were transferred to hospital. Those kept at home had a higher death rate than those transferred. Probably a few of these babies died before transfer was possible but in the main only the larger infants who were in relatively good condition were kept at home. Considering this group as a whole, it would seem desirable that women who unexpectedly go into premature labour eight weeks or more before term should be admitted to hospital before delivery as by doing so the chance of survival of their premature infants is increased.

In the second group of these babies weighing between 3 lbs. 14 ozs. and 4 lbs. 6 ozs., 70% were transferred to hospital. Those babies who remained at home had a lower mortality than those transferred to hospital but, again, only those who were in relatively good condition were kept at home. Cases transferred after home delivery also had a lower mortality than hospital born cases. The numbers are small, but it would not appear to be detrimental to the survival of infants in this group to be born at home provided adequate hospital services are available for the majority of this group after birth.

In the third group weighing between 4 lbs. 7 ozs. and 5 lbs. 8 ozs., 18% were transferred to hospital. Those kept at home had a lower mortality because only those in poor condition were transferred. Hospital services would appear to be necessary only for a small proportion of infants in this group.

Domiciliary Premature Baby Service

For some years special premature baby outfits have been available at the midwives' houses. The full equipment has been loaned to patients in 37 instances and part equipment loaned in 44 instances.

As a further development of this service, some of the City midwives have now received a month's special course of training at the Carnegie Premature Baby Unit. Since November 1st, six of these specially trained midwives have been employed full time in the domiciliary nursing of premature infants in this City. These midwives have a much smaller case load than the others and are therefore able to devote more time to these infants. Each of the six midwives is equipped with baby scales.

MATERNITY SERVICES

The births occurring in the City during the year were as follows:—

		<i>Livebirths</i>	<i>Stillbirths</i>
Births notified	.....	18,888	503
Failed to notify	.....	120	3
		<hr/> 19,008	<hr/> 506

There were 19,221 confinements, resulting in 18,936 single births, 278 sets of twins and 7 sets of triplets. Of the 19,221 confinements, 10,650 took place in institutions and 8,571 were domiciliary.

The following table shows the attendance at birth :—

	<i>Number of confinements</i>		
	<i>Birmingham residents</i>	<i>Out of City residents</i>	<i>Total confinements</i>
Domiciliary confinements	8,246	25	8,271
Institutional confinements	8,923	2,027	10,950
	17,169	2,052	19,221

Antenatal Care

Good antenatal care is of prime importance in the provision of a satisfactory maternity service. Of the 18,089 Birmingham confinements which occurred in Birmingham or Marston Green and resulted in at least one live birth, responsibility for antenatal care was as follows :—

Hospitals	7,229 cases
Private doctor booked	997
Maternity service—general practitioner	5,487
Midwife and centre	4,197
No one responsible	72
Responsibility unknown	107
	<u>18,089</u>

The number of antenatal visits paid by patients was as follows :—

<i>Hospital</i>			<i>Private Doctor</i>		<i>Maternity Service General Practitioner</i>	
	<i>No.</i>	<i>% of known No. of att.</i>	<i>No.</i>	<i>% of known No. of att.</i>	<i>No.</i>	<i>% of known No. of att.</i>
1—2 visits	156	2.5	32	4.3	155	3.4
3—5 visits	738	12.1	111	15.3	654	14.8
6—8 visits	1,525	25.0	304	41.8	1,512	34.1
9 or more visits	3,685	60.3	280	38.4	2,109	47.6
None	2	0.1	1	0.2	1	0.1
Unknown	1,123	—	269	—	1,056	—
			<i>Midwife and Centre</i>		<i>Unknown</i>	
			<i>No.</i>	<i>% of known No. of att.</i>	<i>No.</i>	<i>% of known No. of att.</i>
1—2 visits			181	4.4	1	—
3—5 visits			691	16.9	—	—
6—8 visits			1,299	31.7	1	—
9 or more visits			1,921	47.0	14	—
None			—	0.0	—	—
Unknown			105	—	91	—

The standard of antenatal care as measured by the number of visits paid by the patient would appear to be fairly uniform in all types of practice. An analysis of the influence of antenatal care on the neonatal death rate is given on pages 110-111.

The antenatal diseases and complications, the type of labour and the presentation in these 18,089 domiciliary and other confinements resulting in live births is shown in the following table :—

	<i>Domi- ciliary con- finements</i>	<i>Hospital confinements</i>		<i>Nursing home con- finements</i>	<i>Total con- finements</i>
		<i>Booked cases</i>	<i>Emergency cases</i>		
<i>Antenatal diseases and Complications</i>					
Toxaemia	172	755	91	8	1,026
W.R+	14	39	4	—	57
Rubella	1	1	—	—	2
Non-toxic A.P.H.	43	107	46	2	198
Pyelitis	39	113	2	3	157
Anaemia	112	226	6	2	346
Varicose veins	422	312	10	5	749
Other	294	1,125	51	9	1,479
Combination of above	105	490	45	—	640
Rh. negative ; agglu- tinins present ; no other complc. known	13	35	4	1	53
No A.N. disease or complication	6,203	5,142	183	151	11,679
Antenatal record un- known	723	408	60	512	1,703
TOTAL	8,141	8,753	502	693	18,089
<i>Type of labour</i>					
Spontan. onset :					
spontan. deliv.	7,607	6,949	304	6	14,866
Spontan. onset :					
instrum. deliv.	121	319	49	1	490
Medical induct. :					
spontan. deliv.	81	137	7	—	225
Medical induct. :					
instrum. deliv.	3	36	2	—	41
Surgical induct. :					
spontan. deliv.	12	544	49	—	605
Surgical induct. :					
instrum. deliv.	2	51	5	—	58
Med. & Surg. induct. :					
spontan. deliv.	—	100	5	—	105
Med. & Surg. induct. :					
instrum. deliv.	—	15	2	—	17
Caesarean	—	310	47	2	359
Other	13	21	8	—	42
Unknown	302	271	24	684	1,281
TOTAL	8,141	8,753	502	693	18,089
<i>Presentation</i>					
Normal vertex	7,120	7,569	344	8	15,041
Occipito-posterior	363	387	36	1	787
Brow	3	12	5	—	20
Face	13	31	2	—	46
Breech	103	237	51	—	391
Other presentations due to transverse lie	1	23	5	—	29
Other	8	24	5	—	37
Mixed : one a breech	25	62	3	—	90
Mixed : no breech	5	10	1	—	16
Unknown	500	398	50	684	1,632
TOTAL	8,141	8,753	502	693	18,089

Domiciliary Midwifery

The following table gives details of the domiciliary confinements attended by midwives :—

	<i>City midwives</i>	<i>Private midwives</i>
1. (a) Number of cases where midwife was engaged and solely responsible	3,801	18
(b) Number of cases in 1 (a) where for some reason it was necessary to seek the doctor's assistance during labour	344	5
(Of these, the doctor was present at the actual delivery in 130 cases and of these, 59 were instrumental deliveries).		
2. (a) Number of cases where the doctor was booked for antenatal and postnatal care under the National Health Service and where the doctor had not expressed a wish to be present	3,504	56
(b) Number of cases in 2 (a) where for some reason it was necessary to seek doctor's assistance during labour	530	nil
(Of these, the doctor was present at actual delivery in 190 cases and of these, 76 were instrumental deliveries).		
3. Number of cases where the doctor having undertaken antenatal and postnatal care had expressed a desire to be notified of the onset of labour and his intention to be present irrespective of whether that labour is likely to be normal or not	860	25
(Of these, 23 were instrumental deliveries).		
4. Number of cases where the doctor was privately booked to deliver the patient	54	23
(Of these, 2 were instrumental deliveries).		

In addition, there were 151 cases delivered by ambulance midwives, of whom 2 were booked for home confinements, 143 were booked for hospital confinement and 6 were unbooked emergencies.

There were 396 general practitioners on the general practitioner obstetrician list.

An analysis which was made from domiciliary midwives' records of the number of medical aid calls for the mother received by individual general practitioners shows that 366 general practitioners received medical aid calls, of whom 254 were general practitioner obstetricians. Altogether 286 practitioners, of whom 222 were general practitioner obstetricians, received calls on behalf of the mother from the midwives who were responsible for the antenatal and postnatal care of their own patients. In cases where the general practitioners were responsible for antenatal care, 220 practitioners received calls, of whom 190 were general practitioner obstetricians.

<i>Number of calls received</i>	<i>No. of practitioners who received</i>	
	<i>Midwives' calls</i>	<i>Maternity Service calls</i>
31—40	1	—
21—30	4	—
11—20	22	5
10 and under	259	215
<hr/>		
Total number of practitioners	286	220

Midwives were temporarily suspended from duty for the following reasons :—

Operations	6	Sprained wrist	2
Influenza	6	Bronchitis	2
Tonsillitis	4	Quinsy	2
Debility	4	Nervous debility	2
Coryza	3	Lumbar fibrositis	2
Gastritis	2	Other causes	24

The following table gives details of the number of domiciliary midwives in practice during the year :—

	<i>No. in practice 1st Jan., 1950</i>	<i>No. re- signed</i>	<i>No. re- tired</i>	<i>New appoint- ments</i>	<i>Deaths</i>	<i>No. in practice 1st Jan., 1951</i>
<i>Employed by Health Committee :</i>						
Midwives	124	22	—	20	—	122
Maternity nurses	15	1	2	3	—	15
Ambulance midwives	16	3	—	1	—	14
<i>In private practice in City :</i>						
Living in City	19	—	—	1	—	20
Living outside City	6	1	—	3	—	8

Of 8,341 domiciliary confinements, 8,219 were delivered by City midwives and 122 by private midwives. In addition, there were 151 attended in patients' homes or in ambulances by the ambulance midwives.

City Midwives

During the year, City midwives attended 8,219 confinements, acting as maternity nurses in 914 of these cases. The approximate average number of deliveries per month, per midwife, was 6. This makes no allowance for 246 weeks lost by sick leave. In addition, owing to the great pressure on the hospital bed accommodation, 3,829 women had to be discharged to their own homes before the 14th day of the puerperium. In these cases the domiciliary midwives continued the attendance on these women in their own homes as long as necessary.

Supervision of Midwives

During the year 1950, 408 midwives notified their intention to practice in the City. Of these midwives, 192 were in institutions, 38 in nursing homes, 144 were domiciliary and 17 were attached to the Birmingham Fire and Ambulance Service. Three of the midwives lived outside the City and did not come under routine inspection. In addition, there were 19 domiciliary maternity nurses and 11 independent maternity nurses.

The following visits were paid during the year by the Supervisors of Midwives :—

Routine visits to midwives	359
Special visits to midwives	313
Visits to stillbirths	109
Visits after neonatal deaths	122
Nursings and deliveries supervised	210
Visits to Ophthalmia Neonatorum cases	878
Visits to puerperal sepsis cases	87
Other visits	622
Unsuccessful visits	647
No. of interviews with midwives	1,258

Midwives sent for medical help in 2,310 cases; for the mother in 1,915 instances and for the child in 395.

REASONS FOR SENDING FOR MEDICAL AID

MOTHERS

	<i>Midwife booked and solely responsible</i>	<i>Doctor booked for antenatal and postnatal care</i>
A. Delayed labour	254	87
Haemorrhage	89	48
Adherent placenta	36	10
Placenta praevia	1	1
Abnormal presentation	44	24
Unable to make out presentation	1	—
Abortion and miscarriage	6	1
B. Ruptured perineum	567	265
C. Puerperal pyrexia	86	29
Phlegmasia alba dolens	—	—
Inflamed breast	24	3
D. Varicose veins	59	13
Unsatisfactory feeding	4	1
Retention of urine	—	—
E. Excessive sickness	—	2
Eclampsia	—	—
Albuminuria	14	1
F. Other causes	196	49
	1,381	534

REASONS FOR SENDING FOR MEDICAL AID (*continued*)

CHILDREN			
Ophthalmia neonatorum	115	49	
Premature birth and debility.....	23	2	
Convulsions	4	1	
Deformity or malformation	31	9	
Umbilical inflammation	6	1	
Inflamed breasts, or abscess of	—	—	
Skin eruption, pemphigus	22	4	
Unsatisfactory condition	49	15	
Other causes	53	11	
	303	92	

Emergency Maternity Service

This is a service whereby an obstetric consultant and/or a resident doctor and nurse attend the patient in her own home. They are conveyed by ambulance and carry special equipment, including blood transfusion equipment, for the treatment of obstetric shock or hæmorrhage.

This service is staffed by personnel from Birmingham Maternity Hospital and usually attends at the request of the general practitioner. In cases of great urgency and where a general practitioner is not available, a midwife may, herself, call the Emergency Service.

There was a slight decrease in the number of calls on this service during the year. There were 112 calls as compared with 131 in 1949. Thirty-six of these were patients outside Birmingham. All the calls were made by the general practitioner.

The reasons for being summoned to the Birmingham cases (76) are classified below. Eight of these cases were transferred to hospital, 7 immediately and one at a later date, and blood transfusion was given in 58 instances.

	1949	1950
Post partum hæmorrhage and placenta retained	44	39
Post partum hæmorrhage and placenta delivered	31	25
Hæmorrhage and abortion	8	3
Antepartum hæmorrhage	1	1
Obstetric shock only	2	1
Eclampsia	2	2
Retained placenta	0	4
Inversion of uterus	0	0
Complicated breech delivery	0	0
Failed forceps	0	1
	88	76

Gas and Air Analgesia

All the City midwives have their gas and air certificate and 106 sets of apparatus are available. During 1950, 3,113 patients received gas and air anæsthesia by a City midwife in the domiciliary service.

Pethedine

The administration of pethedine by City midwives was commenced on the 1st July, 1950, and up to the end of the year 1,218 cases received this drug. In 248 cases the drug was supplied by the doctor and in 970 cases by the midwives. Pethedine was found to be satisfactory in the majority of cases, especially when given to women having their first babies.

District Training

During the year 1950, 35 teacher midwives were taking pupils on the district. No further midwives have been approved as teachers during the year, but 2 teachers have resigned.

	<i>Pupils trained for the Central Midwives Board Certificate</i>		<i>Obtained Gas and Air Certificate</i>
	<i>Part I</i>	<i>Part II</i>	
Selly Oak Hospital	11	—	12
Dudley Road Hospital	31	—	—
Maternity Hospital	52	—	1
Sorrento Hospital	10	—	20
Heathfield Road	—	26	38
Lordswood	—	38	43
Marston Green	—	47	—

Institutional Midwifery

During the year, 9,562 confinements of Birmingham residents took place in hospitals and 698 in nursing homes. Of the 9,562 hospital confinements, 592 were admitted as emergencies.

Bed Bureau

Cases which require admission to hospital for medical reasons are booked directly by the hospital. Those who desire admission for social reasons must first make application to the Public Health Department, where their needs are assessed in relation to other applicants and the number of beds available. In 1950, 6,195 applications were received, of which 4,060 were granted. These arrangements apply only to the hospitals controlled by the Birmingham Regional Hospital Board.

At a time when there are insufficient maternity beds to meet the demands of those women who desire admission for social or other non-medical reasons, it is of importance to ascertain if possible whether the best use is being made of the hospital beds available. Of the 19,002 confinements of Birmingham residents, 8,970 were booked hospital admissions, and 592 were emergency hospital admissions. These figures include admissions to Marston Green Maternity Hospital. There were 698 women confined in nursing homes and 8,246 who had domiciliary confinements. In addition there were 496 Birmingham women confined outside the City.

The percentage of hospital deliveries of Birmingham residents which occurred in the City or Marston Green is 51, compared with 45 in 1949. The proportion of women delivered in nursing homes has fallen, as has also the percentage of domiciliary deliveries from 49% in 1949 to 44% in 1950. The percentage of women discharged from hospitals before the end of the tenth day (40%) was less than in 1949 (43%).

The proportion of Birmingham women confined in maternity hospitals in Birmingham or Marston Green Maternity Hospital compared with non-Birmingham residents confined in these institutions was 82%, i.e., Birmingham women occupied four-fifths of the available accommodation, which is the same proportion as in 1949.

It is of interest to examine the relationship between the place of delivery and the housing conditions. It has been possible to do this in respect of 18,331 live births:—

	<i>Percentage of live births</i>			
	<i>Domiciliary confinement</i>	<i>Hospital booked</i>	<i>Hospital emergency</i>	<i>Nursing Home</i>
Less than 1 person per room	21	18	27	59
1 and less than 1½ persons per room	38	26	29	25
1½ and less than 2 persons per room	20	23	22	8
2 or more persons per room	21	31	19	3
Not in private family or unknown	—	2	3	5
	100	100	100	100

The percentage of primiparæ confined in institutions was 74% as compared with 70% in 1949. In contrast, only 30% of women having their fourth or more pregnancy were confined in hospital and only 0.5% in nursing homes.

Ninety-seven per cent. of the domiciliary confinements had a spontaneous onset with a spontaneous delivery. In the booked hospital cases the figure was 82 per cent. and in the emergency admission was 63 per cent.

The various types of presentation among 18,331 live births and the place of delivery are shown in the following table :—

	<i>Domiciliary live births</i>	<i>Hospital booked cases</i>	<i>Live births emergencies</i>	<i>Nursing homes</i>	<i>Total live births</i>
Normal vertex	7,173	7,690	352	8	15,223
Occipito posterior	366	395	37	1	799
Brow	3	13	5	—	21
Face	13	32	4	—	49
Breech	132	321	54	—	507
Other presentation					
due to transverse lie	1	25	9	—	35
Other	9	25	5	—	39
Unknown	509	406	54	689	1,658
TOTAL	8,206	8,907	520	698	18,331

The arrangements for institutional confinement cannot be considered satisfactory so long as it is necessary to discharge 40 per cent. before the tenth day. Although of the 8,907 live births which occurred in hospital 5,202 were preceded by a normal antenatal period, 7,690 had a normal vertex presentation and 7,066 a normal delivery, yet 2,709 of the women confined came from homes where there were two or more persons per room. On the other hand, 1,706 women were confined in their own homes where there were two or more persons per room. Even among the 2,709 women living in these overcrowded conditions who were fortunate enough to be confined in hospital many had to be discharged home before the tenth day.

Health Visiting Service

The visited child population under five years shows the very slight decrease of 58 on that of the previous year. The number of health visitors engaged on district visiting fluctuated between 98 during the first quarter of the year and 109 during the third quarter.

<i>Year</i>	<i>No. of visited children under 5 years</i>	<i>No. of Health Visitors engaged solely on Maternity and Child Welfare Work</i>	<i>Case Load per Health Visitor</i>
December 31st, 1937	66,538	90	739
„ 1938	69,698	95	734
„ 1939	70,289	95	740
„ 1940	67,826	96	706
„ 1941	65,259	97	673
„ 1942	70,008	97	722
„ 1943	75,310	98	768
„ 1944	82,839	99	837
„ 1945	86,935	98	887
„ 1946	93,572	103	908
„ 1947	98,223	111	885
„ 1948	99,190	111	894
„ 1949	97,910	106	924
„ 1950	97,852	109*	898

(* 2 part-time health visitors counted as equal to 1 full-time health visitor).

Total number of routine visits paid to children under 5 years.....	242,106
Total number of special visits paid to children under 5 years	14,343
Total number of visits to expectant mothers	11,588
Total number of visits postnatally following ophthalmia, still-births and neonatal deaths	1,345
Total number of visits to cases of neglect, scabies and home help reports	1,351
	<hr/> 270,733 <hr/>
Total number of useless calls	63,142

Of the total visited child population of 97,852 who were under 5 years of age on the 31st December, 1950, the number who attended centres during the year was 40,656 or 41.55%. This shows a percentage decrease of 1.3 compared with 1949 and of 3.9 compared with 1948.

<i>Age of children</i>	<i>Total visited children</i>	<i>Total individual children who attended centres</i>	<i>Percentage of visited group attending centres</i>
Under 1 year	18,167	13,300	73.21
1—2 years	19,102	11,887	62.23
2—3 years	19,555	6,617	33.84
3—4 years	21,324	5,110	23.96
4—5 years	19,704	3,742	18.99
 TOTAL	 97,852	 40,656	 41.55

TABLE OF ATTENDANCES MADE BY INDIVIDUAL CHILDREN

	<i>0—1 year</i>		<i>1—2 years</i>		<i>2—5 years</i>	
	<i>Number who attended</i>	<i>% of centre attenders</i>	<i>Number who attended</i>	<i>% of centre attenders</i>	<i>Number who attended</i>	<i>% of centre attenders</i>
Children who made						
1—2 att.	3,111	23.39	3,577	30.09	9,451	61.10
3—5 att.	2,970	22.33	2,616	22.01	5,013	32.40
6—11 att.	3,794	28.53	3,060	25.74	789	5.10
12 and over attendances	3,425	25.75	2,634	22.16	216	1.40
 TOTAL	 13,300		 11,887		 15,469	

Staff Report

The number of health visitors on the staff at the end of the year, including 12 on the administrative staff, was 121.

They continue to carry cheerfully a heavy load of work, the scope of which is steadily expanding. They are now concerned with every member of the family and indeed the individual health visitor may be considered the pivot round which our health services for her district revolve. Because much of her work is unspectacular, the important contribution she makes to the well-being of the community is not always appreciated.

During the year 27 health visitors left the staff for the following reasons :—

On retirement	4
By resignation on health grounds	2
On marriage	5
On transfer to health visiting in other areas :	
(a) for domestic reasons	10
(b) for other reasons	2
On transfer to District Nursing	1
On transfer to School Nursing	1
On return to hospital work	1
On transfer to work overseas	1
	27

Twenty-four newly qualified health visitors were retained for the second year of contract and, in addition, six new appointments were made.

Sickness

The number of days lost during the year was 1,807, making an average of 15·8 per health visitor.

The number of working days lost by sickness in :—

1946	1,354	average of	13	days per health visitor
1947	2,060	„ „	19	„ „ „
1948	1,852	„ „	15·4	„ „ „
1949	1,893	„ „	16·6	„ „ „
1950	1,807	„ „	15·8	„ „ „

Staff Meetings

During the year seven staff meetings were held at Carnegie Institute. As previously, the first part of the morning was devoted to free discussion and the second half to a lecture or talk of general interest.

Refresher Courses

Eleven health visitors attended refresher courses during the year, each of a fortnight's duration, which were held in Leeds, London (2), and Oxford.

Exhibitions

Health visitors gave assistance at the Home Safety Exhibition held at Messrs. Grey's Store—June 8th–14th.

Hospital Volunteers

During the period the end of June to the end of August, ten health visitors assisted with nursing duties at Little Bromwich Hospital. The total amount of time given was equal to 760 visiting sessions.

Job Analysis

At the request of the Nuffield Provincial Hospitals Trust, twenty-six health visitors and six district nurses took part in a Job Analysis of Public Health Nursing. Individual questionnaires were provided covering two weeks' work—the first March 20th–25th and the second November 27th–December 2nd.

Health Visitors' Training Course, 1950-1951

The twenty-eighth course of training for the Health Visitors' Certificate commenced on the 18th September, 1950.

The response to the advertisements for Birmingham assisted students again showed a decrease on previous years. Thirty-three completed applications were received and eighteen students were appointed by the Health Committee. Of these, one student failed the medical examination and three students withdrew for domestic reasons a week prior to the commencement of the course. The eleven local authorities in the West Midland Region submitted nineteen candidates for training. The Birmingham Education Department and the Anti-Tuberculosis section of the Department both sent two candidates to the course, making a total of thirty-seven students.

This year it was decided to allocate to each student in her second term, a small street or terrace where she will undertake the visiting of its families. The aim of this project is to give the student some measurement whereby to assess the effect of her work.

Practical work has also been extended to include visits to the aged in their homes, and visits in connection with child life protection, boarding-out, and adoptions.

The Royal College of Nursing, London, again sent five Health Visitor Tutor Students to Birmingham for practical experience which included practice in teaching the student health visitors.

As a result of the new syllabus with its increased number of lectures and visits of observation, it was decided at a Conference on the training of health visitors on the 21st November, 1950, presided over by Dr. Matthew Burn and attended by Medical Officers of Health from the Region, to recommend to the Health Committees concerned that the

present training period should be increased from seven months to nine months. This has been agreed, and the new arrangement will operate when the next course commences later in the year.

Forty-seven students of the 1949-1950 course entered for the health visitors' examination in April, 1950, forty students being successful. All students have now obtained the Health Visitors' Certificate.

MATERNITY AND CHILD WELFARE CENTRES

The number of centres provided and maintained by the Council is 33.

Antenatal Clinics

The number of antenatal clinics held weekly at maternity and child welfare centres was 76 with an average attendance of 14.2. The number of individual women attending was 10,732, a decrease of 2,159 on the figure for 1949, and the total attendances decreased by 11,539.

	1947	1948	1949	1950
Number of antenatal clinics held	4,586	4,379	4,110	3,965*
New mothers booked during year	15,768	13,290	10,329	8,555
Total individual women attending	20,671	17,283	12,891	10,732
Total antenatal attendances	96,090	84,523	67,926	56,387

* including 724 midwives' clinics.

The effect of the National Health Service on the attendance at antenatal and child welfare clinics is shown in the following table:—

ANTENATAL AND POSTNATAL CLINICS

Year	(1) <i>Total live and still births notified</i>	(2) <i>Total number of individual women attending A.N. clinics</i>	(3) <i>(2) as percentage of (1)</i>	(4) <i>Total of mothers attending for P.N. examination</i>	(5) <i>(4) as percentage of (1)</i>
1947	24,512	20,671	84	4,922	20
1948	21,822	17,283	79	4,830	22
1949	20,499	12,891	63	3,456	17
1950	19,277	10,732	56	2,751	14

CHILD WELFARE CLINICS

PERCENTAGE OF CHILDREN VISITED IN THEIR OWN HOMES, WHO ATTENDED THE CHILD WELFARE CENTRES

Year	0—1 year	1—2 years	2—3 years	3—4 years	4—5 years
1947	77.3	68.9	33.9	25.7	19.7
1948	76.6	67.1	33.9	24.2	18.8
1949	76.5	63.0	32.0	22.6	18.3
1950	73.2	62.2	33.8	24.0	19.0

Blood Tests

Samples of blood are taken from expectant mothers as part of the routine examination of all patients attending City antenatal clinics. These samples of blood are tested by Wassermann and Kahn reaction for acquired or congenital syphilis at the City Laboratory and for the Rhesus factor by the Ministry of Health Blood Transfusion Service. These tests are of the greatest importance in preserving the good health of mothers and babies and in reducing the incidence of miscarriage, stillbirth and certain diseases of the newborn. Arrangements have been made whereby general practitioners may send their patients to the clinics to have blood samples taken for these tests. In 1950, 948 women were referred for blood tests by general practitioners compared with 300 in 1949.

Mass Radiography

Facilities are available for the mass radiography of all pregnant women who attend the Corporation clinics or their own general practitioner.

	1949	1950
Number requested to attend	12,050	11,400
Number attended	7,792	6,925
	(64.7%)	(60.7%)
Abnormality shown—further examination requested	460	364

Analysis of larger X-ray film :

Normal	236	153
Active pulmonary T.B.	15	19
Inactive T.B.	125	129
Acquired cardio-vascular lesions	1	13
Other abnormal conditions	45	26
Failed to complete	19	14

Incomplete :

Under medical direction	9	5
Awaiting sputum test	6	2
Awaiting large film	3	3
Sent to Selly Oak Hospital	1	—

Postnatal Clinics

The number of postnatal clinics held during the year was 1,490 and the total number of primary examinations and re-examinations at postnatal and antenatal clinics was 2,918, a decrease of 763 on the figure for 1949.

The following table shows the result of these examinations :—

Number of primary postnatal cases examined at clinics	2,751
Number of cases showing no abnormality	1,291
Number of cases showing abnormality	1,460
Percentage of cases showing abnormality	53%

Conditions found :

Breasts—mastitis 26

Abnormalities in genital tract :

Subinvolution	60	} 803
Retroversion	222	
Deeply torn cervix	129	
Parametritis	26	
Cystocele, rectocele or prolapse (repair)	203	
Poor perineum (result of no repair or of ineffective repair)	144	
Fistula (urinary or faecal)	19	
Vaginal discharge	319	
Persistent loss	63	

Abnormalities in urinary tract :

Albumin present	31	} 56
Pus present	—	
Sugar present	15	
Precipitancy of micturition	10	

White leg 2

General conditions :

Raised blood pressure	38	} 530
Debility	228	
Anaemia (a) following haemorrhage	44	
(b) of pregnancy	56	
(c) nutritional	164	

Backache 171

Abdominal muscles (lax, divarication of recti) 357

Other conditions 265

(More than one abnormality may be found in the same mother).

At postnatal clinics held at welfare centres the mother is also given the opportunity of bringing her young infant for examination and advice at the same time as she receives her own examination. The mother can bring her infant to this clinic until it is three months old. The following are the attendances at these postnatal clinics :—

	1949	1950
Number of postnatal clinics held	1,521	1,490
<i>Mothers :</i>	1949	1950
No. of primary examinations	3,456	2,751
No. of re-examinations	225	167
Total examinations	3,681	2,918
Average number of examinations per session (Dr. present)	2.4	1.9
<i>Infants :</i>		
No. of new infants attending	10,580	9,424
Total number of infant attendances	63,041	57,253
Total examined by doctor	23,860	23,135
Average attendance of infants per consultation	41.5	38.2
Average number of infants seen by Dr., per consultation	15.7	15.5

Attendance of Children at Child Welfare Centres

The total number of attendances at child welfare centres during 1950, including children attending at postnatal clinics :—

(1) By children under 1 year of age	180,012
(2) By children between 1—5 years of age	63,498
	<u>243,510</u>

Total number of children who attended a centre for the first time, and who, at the time of their first attendance, were :—

(1) Under 1 year of age	15,298
(2) Between 1—5 years of age	3,392
	<u>18,690</u>

Total number of individual children who attended during the year and who on the 31st December, 1950 :—

	1949	1950
(1) Were under 1 year of age	14,735	13,300
(2) Were between 1—5 years of age	27,199	27,356
(3) Had attained 5 years of age	1,787	1,714
TOTAL individual children attending	<u>43,721</u>	<u>42,370</u>
Total attendances by infants at post-natal clinics	63,041	57,253
Total attendances made at children's consultations	171,345	156,839
Total attendances made at pre-school medical inspections	26,853	29,418
TOTAL children's attendances	<u>261,239</u>	<u>243,510</u>

Children's Clinics

Children of any age up to five years may attend these clinics though mothers with babies under 3 months are encouraged to attend the post-natal clinics, and children between the age of 18 months and 5 years to attend the pre-school inspection clinics.

<i>Number of Clinics held :</i>	1949	1950
With doctor attending	3,192	3,183
Without doctor attending	223	185
TOTAL	<u>3,415</u>	<u>3,368</u>
New children attending	8,020	7,101
Total attendances	171,345	156,839
Average attendance per clinic	50.2	46.6
Total seen by doctor	56,715	53,670
Average seen by doctor per clinic	17.8	16.9

Medical Inspection of Pre-School Children

These clinics are held for the medical inspection of pre-school children between 18 months and 5 years of age. Quarterly appointments are given and the mother is encouraged to keep these regularly. If more frequent supervision is considered desirable, the mother is advised to bring the child in the interim to the ordinary consultation.

The number of pre-school clinics held during the year was 1,727, an increase of 125 over 1949; the average attendance per clinic was 17, a slight increase over 1949, and the total number of attendances showed an increase of 2,565 over the previous year.

The number of children who attended the pre-school clinic for the first time was 8,102, an increase of 1,094.

The following table gives an analysis of the attendances and the conditions found :—

Section A.

Number of clinics	1,727
Total attendances	29,418
No. of individual children	14,427
Number of children attending pre-school clinic for the first time	8,102

Section B. Environmental Conditions :

Clothing unsuitable or inadequate	37
Rest. Bed-time later than 7 p.m.	2,159
No day-time rest	5,898

Section C. Defects :

Eyes.	Squint	269
	Inflammatory conditions	106
	Other eye conditions	44
Skin.	Eczema	187
	Purulent conditions	56
Ear, Nose and Throat.	Otorrhoea	128
	Deafness	31
	Enlarged or diseased T's and/or A's	2,270
	Nasal obstruction and/or mouth breathing	199
Teeth.	Carious or Defective	1,620
Glands.	Enlarged	1,362
Heart.	Congenital disease	92
	Rheumatic heart conditions	50
Anaemia		26
Lungs		86
Rickets.	Active	44
	Rachitic deformities	261
	Knock knee	1,613
Flat Foot		535
Other deformities		212
Mentality (Backward)		79
Speech.	(Backward or defective)	210
Enuresis		1,294

Study on the Growth of Infants

An investigation into the growth of infants has been inaugurated by the Ministries of Health and Education in collaboration with the British Pædiatric Association. The purpose of this survey is to obtain curves of growth of babies and infants for use in the child welfare services, in hospitals and in general pædiatric practice, from which the growth of individual children can be assessed. The curves at present in use were prepared many years ago, and the single average weight curve generally used is not now considered suitable against which to compare the growth of individual children of different birth weights.

The Birmingham Public Health Department was asked to participate in this investigation and twenty welfare centres were selected for the survey, which began here in October, 1949. Each centre was asked to register one hundred babies who were to be included as soon after birth as possible up to the age of two years, and longer if practicable. It was anticipated that by the end of the survey there might be a 50% reduction in the total number still on the register and, therefore, the target aimed at was 1,000. The survey is progressing satisfactorily and it is hoped that the final figure reached will not fall far short of this number.

Dental Treatment

Facilities for dental treatment during 1950 were the same as in the last quarter of 1949, when, owing to the inability to obtain the services of a full-time Dental Officer, it was only possible to provide three dental sessions per week. Owing to these limited facilities it was not possible to provide dentures and, therefore, there was an appreciable decrease in the number of mothers applying for treatment. The arrangements made in 1949 with the Education Department for the conservative treatment of expectant mothers continued during 1950 and a total of 78 mothers attended during the year.

(a) Numbers provided with dental care :

	<i>Examined by medical officers</i>	<i>Treated</i>	<i>Made dentally fit</i>
Expectant and nursing mothers	8,555	990	884
Children under five	42,370	888	851

(b) Forms of Dental Treatment provided :

	<i>Teeth Extracted</i>	<i>Anaesthetics</i>		<i>Scalings or gum treatment</i>	
		<i>Local</i>	<i>General</i>	<i>Fillings</i>	
Expectant and nursing mothers	3,651	45	3,606	—	—
Children under five	2,265	—	2,265	—	—
		<i>Silver nitrate treatment</i>	<i>Dressings</i>	<i>Radiographs</i>	<i>Dentures provided</i>
Expectant and nursing mothers		—	1	1	—
Children under five		17	—	—	—

	<i>Selly Oak</i>	<i>Stratford Road</i>	<i>Lancaster Street</i>	<i>Total</i>
New mothers booked at welfare centres during 1950 ..				8,555
Numbers inspected by dental surgeon ..	At present all new mothers are inspected by the Medical Officer.			
Numbers having dental treatment	53	288	649	990
Total number of individual children between 2—5 who attended welfare centres during 1950				17,183
Total number of children having dental treatment	54	316	518	888
Number of extraction clinics ..	7	39	78	124
Total attendances :				
Mothers ..	56	316	703	1,075
Children ..	59	334	543	936
Average attendance per session :				
Mothers ..	8	7	8	7.7
Children ..	8	10	7	8.3
Local anaesthetics ..	—	5	23	28
Extractions with local anaesthetics ..	—	7	38	45
General anaesthetics ..	98	541	1,117	1,756
Extractions with general anaesthetics ..	292	1,773	3,806	5,871
Other dental operations, including X-rays, gum treatment, etc.	1	8	10	19

Parents' Guidance Clinic

There were 178 new patients referred during the year—75 boys, 59 girls, 42 mothers, 1 father and 1 member of staff. Fifty were visited in their homes, and did not attend the clinic, but some of the others who attended the clinic were also visited. Seventy-eight were seen by the psychiatrist at the clinic, and 25 attended the clinic, but were seen by the psychiatric social worker only. Seven failed to keep appointments which had been made by letter, and the infant welfare centres concerned were notified. Two changed their addresses before an appointment was given and failed to notify the new address. One was transferred to the Child Guidance Clinic as he was almost five years of age and unlikely to respond to treatment before he started school. One was transferred to the Psychiatric Social Service because the basis of the trouble was the father, who required help and rehabilitation. One was referred to a social worker who was already interested in the child. One was admitted to hospital while he was on our waiting list. One was referred to a general practitioner as she was not considered suitable for this clinic, and one appointment was postponed after discussion with the matron of the day nursery. Ten appointments were made for early in 1951.

The psychiatrist attended 96 clinic sessions with a total attendance of 380. In addition, there were 109 clinic interviews with the psychiatric social worker only.

The patients were referred by the following :—

Medical Officers at Infant Welfare Centres	76
Health Visitors	54
Superintendent of Health Visitors	12
Social workers including Probation Officers, Citizens' Advice Bureau, Social Worker for the Unmarried Mother, Midwifery Bed Bureau, Hospital Almoner and N.S.P.C.C.	12
General Medical Practitioners	7
Day Nurseries	6
Nursery Schools	5
Hospitals	2
Direct request by parents	4

The reasons for referral set out below are grouped according to the symptoms which were felt by the parents to be most troublesome, for example, some timid children had also enuresis, and most of these have come under the heading of timidity. On the other hand some who came under the heading of sleeping difficulties are also timid. Under the heading of aggression are included instances of jealousy of the new baby.

Aggressions (including temper tantrums, destructive and disobedient behaviour, biting and fighting) :

Boys	34
Girls	17

Timidity (including shyness, fretfulness, fears, thumb sucking) :

Boys	8
Girls	14

Enuresis :

Boys	12
Girls	9

Encopresis :

Boys	1
Girls	Nil

Sleeping difficulties :

Boys	10
Girls	14

Feeding difficulties :

Boys	6
Girls	2

Speech difficulties :

Boys	1
Girls	1

Masturbation :

Boys	Nil
Girls	1

Retarded Mental Development :

Boys	2
Girls	1

Pilfering :

Boys	1
Girls	Nil

Mothers' difficulties are grouped under the following headings, according to the most out-standing difficulty, but it will be obvious that those coming under the heading of domestic difficulties and social problems were also anxious, but the anxiety was less acute than in those coming under the headings of depression and anxiety. Overcrowding and bad housing is a contributory factor in a number of cases.

Anxiety	17
Depression	11
Domestic difficulties	10
Social problems	4

One father came on account of his own acute anxiety.

Many of the fathers and husbands were seen and generally co-operated well. The system of shift work makes it possible for many of the fathers to come to the clinic without losing working time, although some have come at considerable inconvenience.

The patients increased by 48 during 1950 which makes an increase of 37%, and this together with the increased work in another department, has caused a reduction in the time available to the psychiatric social worker for home visiting. The policy of a home visit before the first clinic appointment has been continued as far as possible, but some patients have been seen only at the clinic. There are others, however, who need regular home visits.

The health visitors are free to discuss difficulties with the psychiatric social worker, and the child or parent concerned is not always referred to the clinic. Visitors to the Public Health Department have shown interest in the work, and the psychiatric social worker has been invited to speak to several professional groups.

Remedial Exercise Clinics

During the year Children's Remedial Exercise Classes were held at the following Centres :—Carnegie, Erdington, Lancaster Street, Monument Road, Selly Oak, Small Heath, Tennyson Road, Tower Hill, Treafoord Lane and Trinity Road.

Relaxation Classes for mothers were held at Bromford, Lancaster Street, Selly Oak, Sutton Street, Treafoord Lane and Trinity Road.

<i>Children's Classes</i>			<i>Mothers' Relaxation Classes</i>		
<i>No. of children</i>	<i>No. of sessions</i>	<i>Total attendances</i>	<i>No. of mothers</i>	<i>No. of sessions</i>	<i>Total attendances</i>
590	361	5,721	450	230	2,521

The average attendance for children's classes per session was 16 and for mothers' classes 11. At the present time the work is in the hands of five part-time physiotherapists.

Special Clinics

The following special clinics were held at Carnegie :—

<i>Doctor</i>	<i>No. of sessions</i>	<i>No. of children</i>	<i>Average per session</i>
Dr. Braid—consultation clinic	45	247	5.5
Dr. Crosse—consultation clinic	52	224	4.3
Dr. Badenoch—adoption clinic	49	366	7.5
Dr. Brailsford—X-ray clinic	47	605	12.9

Chiropody Clinic

The chiropody clinic continued to be held for four sessions a week.

Total number of sessions held	182
Total number of attendances	1,368
Average number of patients per session	8
Average number called per session	10

Voluntary Committee

Two meetings of voluntary workers were held during the year. On February 10th arrangements had been made for Dr. Gorrie of the Ministry of Health to give an address on "The Scope of the New Health Act, and its relation to Maternity and Child Welfare Work," at Acocks Green Centre. Unfortunately, owing to illness, Dr. Gorrie was unable to be present, and Dr. Mackintosh deputised for her. The second meeting was held at the Carnegie Institute on October 27th, when Dr. V. M. Crosse gave an address on "The Premature Baby," after which a visit was paid to the Premature Baby Ward.

Both meetings were well attended and tea was provided by the Voluntary Committee at each centre. One Committee meeting was held during the year at Weoley Castle Centre on the 20th September.

Sewing Classes

Sewing classes have been held at 25 Centres with a total attendance of 10,677. The classes continue to be staffed by arrangement with the Education Department.

Clinic Assistants

Forty part-time clinic assistants were employed during the year for a total of 168 sessions weekly. Their work has been much appreciated by the health visiting staff.

School Clinic Sessions

The Education Department have continued to hold a weekly minor ailment clinic at Kingstanding Welfare Centre.

HOME NURSING SERVICE

The work of the Home Nursing Service has continued to increase steadily during the year, as shown in the following table :—

	<i>1949</i>	<i>1950</i>
Cases on books, 1st January	1,478	1,675
New cases attended	12,652	14,409
Total cases attended	14,130	16,084
Total visits paid	330,788	387,965

Staff

In addition to 1 Senior Superintendent and 10 Superintendents, there are now 78 full-time and 39 part-time nurses employed. Every effort has been made to secure additional staff but there are still vacancies in all areas of the City.

There have been 35 new nurses appointed to the Home Nursing staff and 35 resignations.

Two male nurses, who were in the Army Reserve, have been called up for service with the Armed Forces.

Sickness

Sixty-nine nurses have been away for periods of sick leave, the total amounting to 22·3 days per nurse.

Twenty-nine were absent for other reasons.

Training

Eight candidates, 3 male and 5 female, were trained at the Bordesley Training Home during the year. All completed the course successfully and have been placed on the Roll of Queen's Nurses.

Refresher Courses

All nurses attended a study day which was held for them in Birmingham in the autumn.

A course of 8 lectures has been arranged for State Enrolled Assistant Nurses on the staff and 28 are attending.

Four senior nurses attended one week's refresher course in the spring at Bangor, arranged by the Queen's Institute of District Nursing.

Student Nurses' Visits

Talks on the work of the Home Nursing Service, some illustrated by films, have been arranged for student nurses in the Birmingham Hospitals and at the Bordesley Training Home.

A large number of student nurses have spent a day with the nurses, accompanying them on their rounds.

Equipment

A large amount of equipment was supplied on loan during the year, details of which are given in the part of this report dealing with Section 28 of the National Health Service Act.

ANALYSIS OF CASES ATTENDED

New cases during year	14,409
<i>Referred by :</i>	
Doctors	11,635
Hospitals	2,252
Health Department	148
Employers	—
Patients' friends	289
Transferred from other areas	62
Found by nurse	23
<i>Medical :</i>	
Cardiac	1,215
Pneumonia (lobar and influenzal)	600
Bronchitis	491
Diabetes	421
Arthritis	191
Carcinoma	878
Senility	766
Other medical	5,591
<i>Infectious disease :</i>	
Tuberculosis	457
Whooping cough	42
Measles	62
Pemphigus	5
Other notifiable diseases	76
<i>Midwifery :</i>	
Puerperal fever	89
Antenatal complications	50
Postnatal complications	113
Abortion	85
<i>Surgical :</i>	
Post operation	1,413
Minor surgical	1,864

Of the 457 cases of tuberculosis shown above who were nursed, 151 were nursed subsequent to their discharge from hospital and 306 were nursed wholly at home or prior to their admission to hospital. Also included in the table given above are the following cases nursed subsequent to their discharge from hospital :—

Cardiac	50
Bronchitis	3
Diabetic	182
Arthritis	5
Carcinoma	74
Senility	14
Other medical	346

DAY NURSERIES

At the beginning of 1950, places were available for 2,190 children in the 46 day nurseries and one 24 hr. nursery maintained by the Health Committee. The nursery at 90, Westley Road closed on May 1st when the property was returned to the owners from whom it had been requisitioned. This reduced the number of places available by 44. Children and staff from the nursery were transferred to other nurseries in the area.

The number of children by age groups, on the registers, and the average daily attendances at the beginning and end of the year are given below :—

CHILDREN ON DAY NURSERY REGISTERS, 1950

	<i>0—1 year</i>	<i>1—2 years</i>	<i>2—5 years</i>	<i>Total</i>	<i>Average daily attendances</i>
January	214	500	1,467	2,181	1,942
December	180	461	1,409	2,050	1,704

The poor attendances in December are largely attributable to illness and bad weather. In the outer suburbs particularly, there has been a noticeable decrease in the demand for nursery accommodation for young babies.

New admissions to the nurseries throughout the year have been restricted to those children who came within the priority groups defined by the Health Committee in 1949—these were :—

1. Children whose mothers are wholly or mainly responsible for the maintenance of the family.

2. Children whose mothers, although not at work, are temporarily or permanently unable to look after them because of confinement, illness, etc.

3. Children whose mothers are at work, irrespective of the social or economic circumstances of the family.

An analysis of all the children in the nurseries at the end of the year gives the following reasons for admission :—

GROUP 1.

(a)	Children of unmarried mothers	392
(b)	Children of women separated from husbands	319
(c)	Children of women with sick or disabled husbands	197
(d)	Children of widows	110
(e)	Children of women with husbands in prison	12
TOTAL		1,030

GROUP 2

Children whose mothers are unable to look after them because of illness, confinement, etc.	156
---	-----

GROUP 3

Children not considered as urgent priority cases, mostly admitted before November 1949	864
--	-----

By January, 1950, the waiting lists for the day nurseries had reached a total of 7,881 children. In order to estimate the situation more accurately, each nursery waiting list was revised and divided, as far as possible, into priority and non-priority cases. At the end of the year, the priority waiting list was 1,003, made up as follows :—

<i>Age Group</i>	<i>No. of children</i>
0—1 yr.	140
1—2 yrs.	301
2—5 yrs.	562

Admission of Outside City Cases

Applications for the admission of children living just outside the City boundary, and qualifying as priority cases, were considered where suitable vacancies existed. At the end of the year, 12 such children had been admitted to the nurseries, for whom full financial responsibility was accepted by the appropriate Local Authority.

Charges for Meals

During October, authorisation was given for an increase in the scale of charges for meals supplied to children in the nurseries from a maximum of 3s. 4d. per week, to a maximum of 8s. 4d. per week. In cases where this results in undue hardship, an appeal can be made for assessment at a lower rate. Thirty appeals were made, and 8 were successful.

Hours of Opening

An investigation into the daily hours of work and distances travelled by parents, showed that comparatively few children required to be in the nurseries before 7.30 a.m. and after 6.30 p.m. The Health Committee, accordingly, decided that from October 1st, the nurseries should be opened from 7.30 a.m. to 6.30 p.m., instead of from 7 a.m. to 7 p.m.

Transfer of Children from Balsall Heath Area

Arrangements continued throughout the year for the daily transport of 22 children aged 2-5 years, from Hope Street Welfare Centre and Pershore Road Nursery, where they cannot be accommodated, to the nurseries at Springfield Road, Billesley Common, and Yardley Wood. The demand for nursery places for the older group in this area is still heavy.

Central Kitchens and Cooking Arrangements

The two central kitchens were responsible for providing and delivering cooked mid-day dinners to all the nurseries except 7, who are now cooking meals on their own premises—4 of these nurseries receive all uncooked supplies from central kitchens. Rationed and other foods are supplied to the nurseries for breakfasts and teas, and all nurseries cook their own vegetables.

TOTAL MEALS PROVIDED FROM 1ST JANUARY TO 31ST DECEMBER, 1950

	<i>Breakfasts</i>	<i>Dinners</i>	<i>Teas</i>	<i>Hot Beverages</i>
<i>Bacchus Road Kitchen :</i>				
Children	123,892	220,394	212,104	442,513
Staff	25,010	66,099	27,570	286,731
<i>Oak Tree Lane Kitchen :</i>				
Children	129,376	242,203	233,962	465,822
Staff	27,627	64,493	31,582	337,975
<i>40, Somerset Road Day and 24 hour Nursery :</i>				
Children	7,138	9,508	8,355	33,148
Staff	5,453	5,312	3,796	21,256
<i>146, Coleshill Road :</i>				
Children	2,095	6,136	6,013	5,891
Staff	1,128	2,209	1,094	12,131
<i>90, Islington Row :</i>				
Children	5,036	9,962	9,690	18,642
Staff	1,351	2,681	1,328	13,458

Laundry

The services provided by the Bacchus Road (Health Department) Laundry have proved most successful. Collections and deliveries are made twice a week at each nursery.

Somerset Road 24-hour and Day Nursery

Accommodation is provided for 30 children as residents from Monday to Saturday each week. Ten non-resident children also attend daily. Those in residence are mainly children whose mothers are employed on transport or shift-work.

Mass Radiography

Following a Ministry of Health recommendation, every member of the Nursery Staff who had not previously done so, was asked to attend the Mass Radiography Centre for a chest X-ray examination. 458 of the staff attended voluntarily, 4 nursing and 12 domestic staff did not wish to attend ; the remainder have all been examined within the last 3 years. From November 1st, all new staff appointments were made conditional upon a satisfactory X-ray report, and since that date 51 applicants have been examined.

Nursery Training

Inspectors from the Ministries of Health and Education visited certain nurseries at the end of 1949, and others in October and November of 1950, to decide whether they reached the required standard, and afforded the necessary facilities for training students in the care of children 0-5 years. As a result of the 1949 inspections, the following reports were received :—

- (a) *Approved for training :*
245, Birchfield Road, 20.
26, Kingston Road, 9.
- (b) *Approved temporarily, pending further inspection :*
50, Highfield Road, Alum Rock.
40, Wordsworth Road, 10.
- (c) *Approval withdrawn from 1-3-50.*
120, Moseley Road, 12.
Alma Street, 6.

After the inspection in 1950, the reports were as follows :—

- (a) *Approved for training :*
127, Crossfield Road, 26.
43, Park Road, Moseley, 13.
- (b) *Approved temporarily, pending further inspection.*
90, Islington Row, 15.
156, Reddings Lane, 25.
- (c) *Approval withdrawn :*
50, Highfield Road, Alum Rock.
40, Wordsworth Road, 10.

The general recommendations made by the Inspectors on each occasion included :—

1. Reduction in the number of children to a maximum of 50 in any nursery.
2. The age group 1—2 yrs. should not exceed 20 in number.
3. More qualified and experienced Staff are needed.

Nursery Students

During their two years training course, students between 16-18 years attended Garrison Lane Training Centre for one day a week for vocational training, and Bournville Day Continuation College one day a week for further education.

In the past year 116 candidates came up for selection for training, of whom 76 were accepted, 22 were refused as unsuitable, and 18 were given a further trial period, pending a decision.

At the two examinations conducted in Birmingham by the National Nursery Examination Board, the following were the results obtained by candidates from the day nurseries :—

April, 1950	11 passed	1 failed
October, 1950	14 passed	2 failed

One of the Nursery Supervisors, seconded temporarily as Health Tutor to the Garrison Lane Training Centre, was subsequently appointed full time Health Tutor by the Education Committee.

Training Courses for Nursery Staff

1. Senior Child Care Reserve Course

Two classes lasting four weeks each, have been held during the year for nursery assistants ; Certificates were gained by candidates from the day nurseries as follows :—

March, 1950	19 successful	1 failed
October, 1950	14 successful	2 failed

2. Supplementary Child Care Reserve Course (Wardens)

One training course for Wardens, which lasted for three weeks, was held during May. Fourteen out of fifteen candidates from the day nurseries were successful in gaining the Certificate.

3. Deputy Matrons' Training Course

Eight senior staff nurses were selected in October for a two months training course, to consist of a month at the Children's Hospital, a week in a Nursery School, and three weeks of lectures, demonstrations, and visits of observation. Four students completed their training in December, and were appointed as Deputy Matrons; the other four commenced their training in November.

Refresher Course for Matrons and Deputy Matrons

A Matrons' Refresher Course, lasting for a week, was held in Birmingham at the end of October, and was followed by a similar course for Deputy Matrons in November. Thirteen Matrons and sixteen Deputy Matrons attended from the Birmingham day nurseries.

Nurseries and Child Minders Regulation Act, 1948

Certificates of registration were granted to six applicants during the year ; of these 3 were for both premises and persons, and 3 for persons only. One applicant, who was considered to lack the necessary facilities, subsequently withdrew her request for registration.

THE HUMAN MILK BUREAU

After a great deal of delay arising from various causes a Human Milk Bureau has been established in the City. Its purpose is to provide pasteurised breast milk for premature and seriously ill infants, where the mother's milk is insufficient or unobtainable.

The staff consists of two State-Registered Nurses, who reside on the premises.

The Bureau began functioning on the 13th September, 1950, but owing to delay in delivery of equipment it was only possible to deal with small quantities of milk. Only donors who have been medically examined are accepted. The milk is subjected to chemical and bacteriological examinations, and is also examined for adulteration with water and cow's milk.

A total of 3,244 ounces of breast milk has been sold. Since September the Bureau has been given the names of 47 possible donors. For various reasons, however, only 33 of these were accepted. The mothers are paid 2d. an ounce, and, until further experience has been gained of the cost of running the unit, it will be sold at 7d. an ounce.

About 200 visitors have been shown over the Bureau since September.

CARE OF THE UNMARRIED MOTHER

During 1950, forty-one girls were admitted to Beechcroft Home for Unmarried Mothers. Two girls were subsequently transferred to other homes and one girl took her own discharge. Of the remainder, 21 girls eventually returned home with their babies, 14 babies were adopted, including one set of twins; in 2 of these cases the girls later decided to keep their babies and the infants were returned to them at home. Two babies were transferred to hospital on account of illness and one baby was discharged to a residential nursery.

During the year there was a decrease in the number of cases dealt with by this department to 834, compared with 869 last year. Of these cases, 614 were unmarried mothers and 220 married women. Amongst the 614 cases, 469 were first pregnancies and 145 were multiple cases.

<i>Dealt with at :</i>	<i>First cases</i>	<i>Multiple cases</i>	<i>Married women</i>
Hope Lodge	28	5	—
Lyncroft House	2	2	—
Woodville	20	—	—
Francis Way	23	—	—
Park Hill	15	—	—
Beechcroft	32	2	—
Birmingham Infirmary	13	23	27
Homes out of City	11	4	—
Own home except for confinement	194	57	143
Own home entirely	73	22	32
Returned to Ireland	12	9	—
Left City before confinement	30	14	10
Born out of City	10	5	8
Miscarriage	6	2	—
GRAND TOTAL	469	145	220

33 cases—Mothers and babies still in the Homes	3.96%
29 cases—Babies have died and stillbirths	3.47%
75 cases—Babies have been adopted	8.99%
4 cases—Babies are with foster mothers	0.48%
47 cases—Mothers have married babies' fathers	5.64%
44 cases—Mothers and babies have left the City	5.28%
19 cases—Babies are in Homes without the mother	2.28%
575 cases—Mothers at home with their babies	68.94%
8 miscarriages	0.96%

834

Home visits paid <i>re</i> unmarried mothers	1,244
Special visits paid <i>re</i> unmarried mothers	292
Cases visited in hospitals	454
Homes inspected <i>re</i> suitable lodgings with babies	13
Special visits <i>re</i> V.D.	8
Office interviews, applications	691
Office interviews, other than applications	3,368
V.D. Office interviews	34

Girls under the age of consent :

12 years old	1
13 years old	0
14 years old	3
15 years old	3
16 years old	10
	17

Summary of the 145 multiple cases dealt with in 1950 (excluding married women) :

67 have other children in their care (21 of these have more than one child).

10 first child dead.

9 first child in home (resident nursery).

18 first child adopted.

5 first child adopted by grandparents.

12 care of relatives, apart from mother.

40 of these cases living with putative father.

(Of these 145 cases, 97 were dealt with previously).

Year	Total illegitimate	Cases dealt with in the		Degree of multiparity						
	births	Department	2nd	3rd	4th	5th	6th	7th	8th	9th
1950	969	834	108	21	11	4	—	—	—	1
1949	1,002	869	136	34	10	1	1	—	—	—
1948	1,154	966	98	33	7	—	1	—	—	—
1947	1,310	1,110	123	28	7	3	3	2	2	—
1946	1,529	1,324	101	25	6	2	2	2	—	1
1945	1,841	1,543	95	28	2	3	1	2	2	—
1944	1,499	1,418	79	20	9	5	—	1	1	—
1943	1,168	1,078	54	15	8	2	1	—	—	—

The following table gives details of the cases among married women :

Adoptions	22
Living with putative father	63
Divorced	19
Husband in Forces	7
Apart from husband	88
Widows	21
	<hr/>
	220
	<hr/>

There were 15 cases of venereal disease, and they were dealt with at the appropriate clinics.

Eighteen cases living outside the City were dealt with.

LODGING MONEY GRANTS (£20 monthly)

	£	s.	d.
The amount spent was	21	15	6
The amount refunded	—	—	—
	<hr/>		
NET COST	21	15	6
	<hr/>		

The number of girls helped 5

Average amount for each month 1 16 3
(or £4 7s. 1d. per case)

The picture in relation to women about to bear an illegitimate child has altered materially since before the war, as is shown in the following table :—

	1938	1950
1. Total number of women, arrangements for whose confinement were supervised by the department	650	728
2. Number in Item 1 who were :		
(a) single women—first pregnancy	469 (72.2%)	411 (56.5%)
(b) single women—2nd pregnancy or more	103 (15.8%)	115 (15.8%)
(c) married women	78 (12.0%)	202 (27.7%)
3. Number of single women requiring institutional care in Item 2 (a)	160	144
Item 2 (b)	37	36
	<div style="display: flex; align-items: center; justify-content: center;"> <div style="font-size: 3em; margin-right: 10px;">}</div> <div style="text-align: center;">200</div> </div>	
4. Number of married women in Item 2 (c) requiring institutional care	3	27
	<div style="display: flex; align-items: center; justify-content: center;"> <div style="font-size: 3em; margin-right: 10px;">}</div> <div style="text-align: center;">207</div> </div>	

Although 78 more women sought the help of the department in 1950 than in 1938, yet the number of women requiring institutional care remained approximately the same, i.e., 200 in 1938 and 207 in 1950. There is a smaller proportion of single girls having their first illegitimate child than there was in 1938, and a substantial increase in the number of married women having illegitimate children. This situation has posed new problems for the department which were receiving active consideration at the end of the year.

DOMESTIC HELP SERVICE

Number of domestic helps employed full-time	104
Number of domestic helps employed part-time	210
Number of night watchers employed	11
	<hr/> 325
Number of individual cases dealt with :	
Confinements	1,436
Postnatal	164
Illness of the housewife	368
Elderly persons :	
(a) By day	486
(b) By night	14
Lung tuberculosis	33
	<hr/> 2,501

There has been a considerable increase in the number of elderly persons supplied with domestic helps by day, and a night watcher service has also been started.

Fourteen domestic helps have now volunteered to work in the homes of the tuberculous. The number of these cases attended this year is more than double the figure of last year.

Training courses for domestic helps have been continued and forty-two received this training, making a total of 134 trained helps.

INSPECTION AND REGISTRATION OF NURSING HOMES AND NURSES' AGENCIES

Nursing Homes (Public Health Act, 1936)

At the end of 1950 there were 30 nursing homes on the register. Three homes closed during the year, two for maternity cases with five and six beds respectively, and one for four chronic medical cases. Accommodation was increased in three homes ; one maternity home from 14 to 16 beds and two homes for chronic medical cases from 6 to 8 and 20 to 22 beds respectively.

The total number of visits paid to nursing homes during the year was 111 (95 by medical officers and 16 by supervisors of midwives).

Total number of beds in homes	375
Number of homes which are equipped for surgical work	4
Number of homes which take chronic or senile cases only	14
Number of homes which take maternity cases only	12*
Number of homes which keep some beds for maternity work	2†
* with 93 beds.	† with 5 beds.

Nurses' Agencies (Nurses Act, 1943)

In accordance with the Nurses Act of 1943 and the Nurses Agency Regulations, 1945, applications were received from five agencies and renewals of licence were granted in each case. One licence was granted in respect of a new application.

The total number of visits of inspection paid during the year was 15.

MEDICAL CARE OF DEPRIVED CHILDREN (CHILDREN ACT, 1948)

At the end of the year there were approximately 3,200 children in the care of the Children's Committee. The following arrangements are in operation for the medical supervision of these children.

A. By Local Authority Medical Officers

1. *General medical supervision* of (a) all residential homes, nurseries and hostels; (b) Shawbury Approved School and the Remand Homes; (c) children in foster homes; (d) children prior to and after being placed for adoption who are in the care of custodians residing in the area of the Authority; and (e) children licensed to their own parents or relations.
2. *Routine medical examinations and medical examinations within 24 hours of admission and on discharge of children* in residential homes and nurseries except in the case of one residential nursery situated 42 miles from Birmingham where the local general practitioner, by special arrangement, is responsible.
3. *Medical examinations of children prior to and within one month of boarding-out and routine medical examinations six monthly thereafter*, except adolescent boys, who are examined by medical officers from the Children's Hospital.
4. *Medical examinations of children placed for adoption* (a) prior to placing for the probationary period, and (b) detailed examination for the Court before the hearing of the application for adoption.
5. *Medical examination of student nursery nurses.*
6. *Diphtheria Immunisation* of the children in the residential nurseries and cottage homes, as soon as possible after the age of eight months, and a supplementary dose between $4\frac{1}{2}$ and 5 years, before going to school. Diphtheria immunisation of nursery students on appointment or immediately afterwards.

B. By General Practitioners

1. Medical services provided under the National Health Service Act, 1946, for all children in the care of the Children's Committee accommodated in residential homes, hostels and nurseries and the boys in Shawbury Approved School.
2. Children boarded-out are usually included on the medical lists of their foster parents' general practitioners.
3. Routine and medical examinations on admission and discharge of the children and adolescents in the remand homes, Shawbury Approved School, the girls' hostel and the residential nursery at Overbury.
4. Medical reports on children in the remand homes requested by the Magistrates of the Juvenile Court and also prior to transfer to an Approved School.
5. Vaccination against smallpox, where requested by the parents.
6. Diphtheria immunisation of the children in the residential nursery at Overbury.
7. Medical reports on proposed adopting parents.

C. By Male Physicians from the Children's Hospital

Routine medical examinations every six months of the adolescent boys in the hostels, and adolescent boys boarded-out in foster homes and licensed to their parents or relatives, are carried out within a month of boarding or licensing out and at six monthly intervals thereafter.

D. Mass Radiography by arrangement with the Regional Hospital Board

Mass radiography for all the staff of the residential nurseries has been arranged prior to or immediately after appointment and at yearly intervals thereafter.

The health of the children in care has been very good on the whole and there have been no major epidemics of infectious disease apart from Red House Nursery, Overbury, where, out of a total of 30, 13 of the children developed whooping cough and 23 children and 3 nurses developed chickenpox.

Psychiatric Services

The Education Committee provide the following services :—

1. Psychiatric reports, or combined psychiatric and medical reports on children referred for report by the magistrates of the Juvenile Court.
2. Part-time services of a Psychiatrist and an Educational Psychologist for one session per week each for Forhill House Remand Home.

Because of the considerable delay, owing to pressure of work, before children were seen and reports on the children received from the Child Guidance Clinic, it was recommended that temporary arrangements should be made for the services of a psychiatrist for two sessions per week for a period of three months to examine certain children already in care and any long term cases admitted to the care of the Children's Committee who appeared to require this service. The services of a health visitor, who is also a fully qualified psychiatric social worker, were made available to assist in this work. At the end of the three months it was found necessary to extend the services of the psychiatrist to four sessions per week and to recommend that an educational psychologist should be engaged for five morning sessions per week. In September, the services of the psychiatrist on a sessional basis were no longer available and it was agreed that specially selected cases could be sent to a psychiatrist privately. The services of the educational psychologist and the psychiatric social worker were continued. These arrangements are only temporary until such time as the Health Committee are able to develop their mental health service fully.

Tuberculosis and B.C.G. Vaccination

Children who are in danger of infection from tuberculous parents, are admitted, when places are available, to the residential nurseries and children's homes under the care of the Children's Committee.

Ninety-six children, known contacts of tuberculosis, have been admitted to nurseries or homes throughout the year—all such cases being accepted for admission only after the family history has been verified and all relevant information received by a Local Authority Medical Officer. Arrangements were made with the Anti-Tuberculosis Department for all children to be examined before admission to ensure that they were not in an infectious condition. Thirty-four further applications were made but, owing to shortage of accommodation, these could not be dealt with.

Where a tuberculous mother is admitted to one of the maternity hospitals from a sanatorium for her confinement, the baby is transferred to a residential nursery, if there is a vacancy, having had no direct contact with the mother since birth, and the mother returns to the sanatorium. B.C.G. vaccination may or may not be carried out while the child is in the nursery. The child remains in the care of the Children's Committee, until the mother is cured or the disease arrested, and allowed to return home provided no alternative means of care are available.

Owing to the shortage of institutional beds, domiciliary treatment of tuberculous parents is now being carried out to a large extent in the City and the number of patients treated in their own homes, who return to normal life and work without danger of spreading tuberculosis to their fellows is increasing every year. In these cases application is made for children to be admitted into care so that the mother can have adequate rest during the treatment at home.

Of the 96 contact children admitted, 34 mothers were admitted to the sanatorium, 53 mothers were treated at home, 3 fathers had been admitted to the sanatorium and there was no mother, and four fathers were being treated at home. Two medical problems arise—children of tuberculous parents, having been in care since birth, may be removed against medical advice from care when the parent, still infectious, has discharged herself from the sanatorium, also against medical advice, and insists on having the children at home. On the other hand, a tuberculous parent, with a large family, may be recommended sanatorium treatment. Vacancies in the homes or nurseries are offered to the children under 5 years of age with the intention that the remaining parent could look after school children, but the tuberculous parent has refused to go to the sanatorium unless all the children are accommodated and has therefore remained at home as a source of infection.

The Home Office has made certain recommendations regarding the protection of organised groups of children against the risk of infection by adults suffering from tuberculosis which require among other things that all staff engaged for employment which involves close contact with groups of children should not be engaged without a medical examination, including an X-ray examination of the chest, and this X-ray should be repeated annually. This recommendation, which applies to all the institutions maintained by the Children's Committee, is being carried out.

Mental Deficiency

The parents of mental defectives, particularly when the mother is unable to look after them owing to illness, approaching confinement, etc., are beset by problems, the most acute often being the care of such children during their absence. These children are usually visited by a Local Authority Medical Officer to decide whether temporary admission during the mother's absence to a children's home or nursery is practicable, and desirable. On the other hand, several children in care have been certified mentally defective but, owing to the urgency and the length of the present waiting list, admission to a suitable institution is likely to be long delayed, with the result that very often these children have to remain in the nurseries or homes.

Educationally subnormal children coming into the care of the Children's Committee are considered by the appropriate medical officer of the Education Department for admission to Monyhull or Springfield House. Many of these children are capable of social adaptation and they take their place in the community.

Some appear before the Juvenile Court for various misdemeanours and the Children's Committee have viewed with some concern their committal to remand homes for observation and reports, where conditions are not suitable to deal with such children.

Epileptics

A good liaison has been established with Chalfont Colony in Buckinghamshire, and the authorities there are prepared to consider the admission of any child in care who develops epilepsy and becomes unsuitable for accommodation in a children's home.

Several of the children have been referred to Winson Green Hospital by the psychiatrist for an electro-encephalogram and, in some cases, the result has been stated as "strongly suggestive of epilepsy." If the behaviour of such children deteriorates and control in the home becomes impossible, it has been suggested by the psychiatrist that application should, in the first instance, be made for admission to a home for the maladjusted child. Application for admission to an epileptic colony should not be considered until the commencement of fits.

Dental Arrangements

Though the Memorandum issued by the Home Office in June, 1950, recommended that it was desirable that children over the age of two years should have their teeth inspected soon after admission and at intervals of not more than six months, it has not so far been found possible to provide such a dental service. It is encouraging to note that the state of the children's teeth in nurseries and institutions is very good indeed and the scarcity of dental facilities does not present a problem to the nursery matrons.

In a recent article on "Teeth of Five Year Old Children," Lady Mellanby, who included the five year old children in Erdington and Shenley Homes in the survey, made some interesting comments. She was comparing 542 children of five years of age in residential homes with 560 children of the same age attending private and London County Council schools in 1945 and 1950. Among the children in the homes in 1950, tooth structure had improved in that 42% of all teeth examined were perfect as compared with 32-33% being perfect in 1945. There was a reduction in the incidence of caries from 10.5% to 7.2%. In many cases the caries was very mild indeed.

As in 1945, so in 1950, the teeth of children in residential homes showed less disease than those of the private school children and much less than those of the London County Council schools at both inspections. In discussing the reasons for these differences Lady Mellanby states: "There may be many contributory factors, but the calcifying properties of the respective diets at different periods both pre-eruptive and post-eruptive are an important key to the situation. In the communal life of the residential homes fads and fancies would be much less in evidence and regular meals of high nutritional and calcifying qualities, including an ample allowance of milk and a daily dose of Cod Liver Oil, were the routine. The better diet of residential homes during the period of

tooth development strengthened the resistance to caries of the teeth." She further states: "It is a challenging thought that, on the whole, children brought up in orphanages and other public institutions, have a better chance of remaining free from caries at least up to five years than children of the same age brought up in private families."

It had been hoped that, when the dental service for mothers and children was developed by the Health Committee, facilities could have been provided for children under the care of the Children's Committee, but it was found impossible to recruit staff for this purpose. Children who are in attendance at school are eligible for the usual dental service provided by the Education Committee, i.e., each child receives a dental inspection approximately once a year and all children found to require treatment receive it as soon as possible thereafter. In addition, if emergencies occur during times when school dental clinics are open (i.e., Monday a.m. to Saturday a.m.) any school child can receive emergency treatment. No special arrangements apart from the Dental Hospital are available at the moment for dealing with a child who develops severe toothache during the weekend.

At Shawbury Approved School a dentist visits once fortnightly and treats the boys as patients under the National Health Scheme. These arrangements are most satisfactory.

At Erdington Cottage Homes—a dentist provides all emergency treatment required but does no routine inspections. The only institution where there has been serious difficulty with regard to emergency dental treatment has been Forhill House Remand Home, where the distance is the main problem.

At the end of the year correspondence was taking place between the Medical Officer of Health and the Clerk to the Birmingham Executive Council on the subject of dental care—the Local Dental Committee having agreed to take all steps to obtain the co-operation of general dental practitioners in the City in the dental care of children, which would include children under the care of the Children's Committee.

Ophthalmic Services

All children in attendance at schools maintained by the Education Committee are entitled to benefit under Part VI of the Supplementary Ophthalmic Services Regulations and, therefore, such children receive treatment, free of cost, through the School Health Service.

After consultation with the Education Committee it was agreed that the facilities of the School Health Service for the provision and repair of spectacles could be extended to pre-school children from the age of 2 years provided the Children's Committee reimburse the Education Committee in respect of costs incurred in providing the service. Alternatively, arrangements might be made for pre-school children to have ophthalmic services via the general practitioner under the National Health Service.

With regard to the repair and replacement of spectacles, the Local Executive Council have power under the Regulations to charge the Local Education Authority with the cost of any repairs or replacements which, in their opinion, are occasioned by lack of care on the part of the pupil. The Children's Committee would then reimburse the Education Committee in full in respect of such charges.

It was agreed by the Children's Committee that a sum not exceeding 6/- per child should be allowed to cover the cost of the initial provision of suitable frames for spectacles supplied under the National Health Service Act, 1946, to children over the age of 11 years who are accommodated in residential establishments administered by them.

For children resident in Remand Homes and Approved Schools :
(1) if the child requires attention for a condition other than refraction only, he may be referred to the Eye Hospital via the general practitioner ;
(2) if he requires refraction only, he may be sent to an optician via the general practitioner ; and (3) if it is merely a question of broken glasses, and he has had his eyes tested under the National Health Scheme, he can be sent direct to the optician.

Chiropody Clinic

Arising from the routine medical inspections of the children in the Cottage Homes, it became evident that a small proportion of children were suffering from corns and callouses of the feet which would be likely to cause them pain and disability in the years to come, and they required the attention of a chiropodist. In an experiment carried out by the Local Authority Medical Officers of Ealing, in 96% of children of 14 years of age under review corns or callouses were present on the fifth toe. These are the result of abnormal and continued pressure and the correlation between these and the presence of short or tight shoes was high. Most shoes are tight in this area before there is any shortness in the great toe area and correct shoe fitting at regular intervals of children in care would be of decided benefit.

Towards the end of the year arrangements were made for the children so affected to be treated by a chiropodist employed by the Health Committee.

Summer Holiday Arrangements

Mention must be made of the excellent arrangements made by the Children's Officer for 700 children in the care of the Children's Committee to have a three weeks summer holiday at Gosport with consequent benefit to the health and general well-being of the children.

Milton Grange Reception Unit

The primary object of a reception unit is to afford an opportunity for preliminary investigation and for obtaining accurate and co-ordinated information about each of the children received into care. A right decision

about placing, taken at the outset, will reduce the risk of subsequent change and the disturbing effect upon the child of breaking his relationship by transferring him to new surroundings. Facilities are available to obtain the fullest possible knowledge and understanding of the child's health, personality, conduct, intellectual capacity, emotional state and social history. The special services at Milton Grange consist of :—

- (a) a Warden, who has been specially trained in the assessment of children ;
- (b) an educational psychologist, who attends for three sessions a week and assesses the children's intellectual capacity and educational attainments. Facilities for play therapy are made available to her at the Remedial Educational Centre in Selly Park ;
- (c) the part-time services of the psychiatric social worker, already referred to. Her duties include the visiting of the child's home environment before and after placing, as well as making contact with teachers, youth club leaders, relatives, etc. ;
- (d) part-time services of a children's visitor for home reports, etc., of apparently normal children ;
- (e) house-mothers who receive the children and look after them generally and at the same time take their share in the observation and assessment of the children. One house-father is also employed here, and his services have proved eminently satisfactory.
- (f) the local authority medical officer.

Case conferences are held weekly and all those attend who can contribute to the final assessment of the child's needs. As the placing recommended as the result of the assessment will not always be immediately practicable, an intermediate stay in a children's home may be necessary before the final placing is made.

All the children are on the medical list of a local general practitioner, who is responsible for the medical care of children in relation to sickness. All children are medically examined within twenty-four hours of admission and discharge by the Local Authority Medical Officers, who also undertake general medical provision.

The reception centre is also available for use as a place of safety for children in cases of emergency.

The risk of infection entailed in housing together children under the age of two years and older children, and the special staffing required for children under two years, makes it desirable that children under two years should be admitted, in the first instance, to nurseries separate from the reception centre.

A child's stay in the reception centre is for the purpose of assessment only, and the period should be as short as practicable. No case should exceed four weeks unless a longer stay is unavoidable for medical reasons.

Residential Nurseries

A Memorandum issued by the Home Office in June, 1950, for the guidance of Local Authorities on the provision and conduct of residential nurseries made the following recommendations which were based on advice tendered to the Secretary of State by the Advisory Council of Child Care. These recommendations have been implemented in the Birmingham Nurseries.

- (1) Children should be medically examined within twenty-four hours of admission and on discharge.
- (2) There should be monthly routine medical examinations of all children under one year of age.
- (3) Routine medical examinations of children aged one year and over should be quarterly.
- (4) Medical records should be kept.
- (5) The medical officer's duty should include supervision of dietary, health and hygiene.
- (6) The local general practitioner should be on call for emergencies and the treatment of sick children should be provided under the National Health Service Act.
- (7) A medical examination of nursery staff before appointment, including an X-ray of the chest, is recommended, with an X-ray of the chest at yearly intervals after appointment. Young nursery nurses, in their own interests, should be immunised against diphtheria previous to appointment or immediately afterwards.

Where children are accommodated in nurseries, family grouping is encouraged whereby one nurse is responsible for a small group of 4, 5 or 6 children with consequent beneficial effects to the children. The children get to know their mother substitute intimately and find confidence in their relationship with her. The children, on admission, settle down quickly, probably because of less rivalry and the timid and the backward child improves in the smaller group.

It is also hoped that in the future all nurseries will accommodate children from 0-5 years so that the younger children will be able to mix with the older ones and there will not be the break at the age of 2 years on transfer to another nursery.

An interesting offer was made to the Home Office and later accepted by the Children's Committee, by a business man who placed at the disposal of the local authority his large well furnished house and lovely garden as a foster home for physically handicapped children, particularly children who had had infantile paralysis. He wished to retain three rooms only for his own use, and wished to take a personal interest in the welfare of the children. A suitable foster mother was appointed and two girls, both wearing leg irons and attending a special school daily for physically

handicapped children, were boarded-out here in October, 1950. This was a unique opportunity for such children to enjoy a normal home life which otherwise would never have been offered to them. It is hoped that in addition two boys will later be boarded-out in this home.

The placing has been carefully supervised and it is quite evident that the girls are responding well and are very happy.

Cottage Homes

Overcrowding in the Homes has been reduced on the one hand by the acquisition of Middlemore House on lease from September, 1949, with accommodation for 100 children and, on the other hand, by an increase in boarding-out. At the end of the year all single children in the homes suitable for boarding-out had been placed with foster parents.

A course of lectures in elementary hygiene was given by health visitors to the house-mothers and assistant house-mothers, with resultant benefit to staff and children alike.

Meetings of house parents were held at the Cottage Homes, when talks on children's difficulties were given by the psychiatric social worker and, in each case, an interesting discussion followed.

Erdington Cottage Homes

The Medical Officer of Health submitted a report on the adverse conditions found, with a strong recommendation for the modernisation of these homes, particularly the provision of additional sanitary and lavatory accommodation and installation of adequate heating and the supply of hot water.

The whole scheme was agreed in principle by the Home Office though it was realised that when the scheme was completed the homes would reach only minimum standards. The order of priority agreed upon was:—

The provision of adequate hot water to each cottage, along with adequate space heating (only five cottages have a hot water supply system—16 cottages require space heating).

During the second year sanitation and kitchen facilities will be given priority. Owing to the high cost of the proposed adaptations, it was decided that the work should be spread over three years. In December, 1950, work commenced.

Shenley Fields Cottage Homes

Substantial structural alterations were found to be necessary to bring these homes into keeping with modern standards of comfort and amenity. From the point of view of the health of the children and staff the provision of additional sanitary and lavatory facilities, the replacement of existing obsolete and inadequate kitchen arrangements and the provision of adequate heating and laundry facilities were considered to be urgently necessary.

Owing to the substantial nature of the proposals it was agreed that the alterations in these homes would have to be spread over a number of years and the implementation of the scheme would in large measure be determined by the limited national resources available for essential works of this nature.

Adoptions

The Adoption Act, 1950, consolidates the enactments contained in the previous Acts of 1926, 1939 and 1949 relating to the adoption of children. The City Council delegated their powers and functions under the Act to the Children's Committee and these were transferred to them from the Health Committee on the 1st July, 1950. The following is a summary of the work undertaken by the Health Department before the transfer :—

Interviews :

Applications for child	85
Applications for home	61
Subsequent interviews	1,509
Special interviews	444

Visits :

Homes inspected and rejected	—
Homes accepted	56
Subsequent visits	515
Attendance at Court	31
Special visits	60

On the 1st July, 1950, with the exception of seventeen, all cases were handed over to the Children's Department. These seventeen cases were in process of being placed and were discussed with the Children's Department, who agreed that the Health Department should continue the supervision of this small group. All supervision ceased to be exercised by this Department as from November 1st, 1950, and all cases were completed and the orders granted by December 15th, 1950.

A Local Authority Medical Officer, along with the Assistant Children's Officer, interviews all applicants for adoption and all relevant information is obtained. Where there has been a past history of tuberculosis—even with a satisfactory radiograph—the advice of the Senior Tuberculosis Officer is obtained before the child is placed with a view to adoption. The Tuberculosis Officer has advised that a baby placed in a home where one of the adopting parents has had a tuberculous history should have B.C.G. Vaccination before placement.

All proposed adopting parents have not only to have satisfactory medical certificates of fitness but also a satisfactory mass radiograph examination before a baby is placed with them for adoption.

Medical Examination of Children Proposed for Adoption

These medical examinations are conducted by a Local Authority Medical Officer. Facilities for such examinations are extended to include direct placings with near relatives and children placed in the area by other Adoption Societies.

(a) A preliminary medical examination is undertaken before the child is placed for the three months probationary period. During 1950, 62 children were so examined and 3 of these were found to be unfit for placing.

(b) A full detailed medical examination is undertaken in all children prior to the Adoption Order being heard in Court. Of 241 such examinations during 1950, 163 were healthy and certified fit for adoption, 61 had minor defects but were certified fit for adoption. Seventeen of the children were certified unfit for adoption and, of these, five were adopted nevertheless.

Review of Children previously examined 1943-1949

Eighteen children were reviewed—of these, nine were examined in relation to defects previously discovered. Five children attended because of defects which had developed subsequent to adoption. Appropriate advice was given in each case.

At the end of the year there were very few children in the care of the Children's Committee who could be considered suitable for adoption. On the other hand there were 38 homes which had been approved as suitable for placing children for adoption—25 for girls and 13 for boys. In addition, 37 further applications to adopt children had been received and were receiving attention.

The total number of applications from prospective adopting parents since the 1st January, 1950, has been 400 and in each of these cases it has been necessary for a Children's Visitor to pay several visits. Many of these offers subsequently lapse for diverse reasons and never reach the stage of probationary placement.

The following are details of the results of medical examinations :—

Total examinations—322

1. Preliminary examinations			62
Fit for placing	59	}	62
Unfit for placing	3		
(1) Congenital heart		}	not placed
(2) Congenital head retraction			
(3) Secondary anaemia—placing delayed.			
2. Final examinations			241
Healthy	163	}	241
Minor defects	61		
Unfit for adoption	17		
(5 adopted none the less).			

3. <i>Adopted Children reviewed from 1943—1949</i>	18
4. <i>One adopting mother examined :</i>	
Mitral stenosis	1
Referred to consultant physician, who advised against adoption	—
TOTAL	322

Analysis of Cases

UNFIT FOR ADOPTION

- | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---------|-----|------------------|----------------|---------|-----|-----|------------------|---------|-----|-----|-----------|---|
| | (1) Severe infantile eczema ($4\frac{1}{2}$ —12 mths.)—returned to care of Warwickshire Children's Dept. | | | | | | | | | | | | | | |
| | (2) Post congenital lues (3 yrs.)—in residential nursery. | | | | | | | | | | | | | | |
| | (3) Active tuberculosis (pulmonary), (2 yrs.)—admitted to Yardley Sanatorium. | | | | | | | | | | | | | | |
| | (4) Poor physique (1 yr. 3 mths.)—placing deferred—in residential nursery. | | | | | | | | | | | | | | |
| Adopted by aunt. | (5) Physically satisfactory but bad family history of insanity. (5 yrs.). | | | | | | | | | | | | | | |
| Adopted none the less | <table border="0"> <tr> <td rowspan="4">{</td> <td>(6) Do.</td> <td>do.</td> <td>do.</td> <td>(10—12 mths.).</td> </tr> <tr> <td>(7) Do.</td> <td>do.</td> <td>do.</td> <td>(1 yr. 3 mths.).</td> </tr> <tr> <td>(8) Do.</td> <td>do.</td> <td>do.</td> <td>(6 yrs.).</td> </tr> <tr> <td>(9) Post whooping cough debility, and family history of insanity. (5 yrs.).</td> </tr> </table> | { | (6) Do. | do. | do. | (10—12 mths.). | (7) Do. | do. | do. | (1 yr. 3 mths.). | (8) Do. | do. | do. | (6 yrs.). | (9) Post whooping cough debility, and family history of insanity. (5 yrs.). |
| { | (6) Do. | | do. | do. | (10—12 mths.). | | | | | | | | | | |
| | (7) Do. | | do. | do. | (1 yr. 3 mths.). | | | | | | | | | | |
| | (8) Do. | | do. | do. | (6 yrs.). | | | | | | | | | | |
| | (9) Post whooping cough debility, and family history of insanity. (5 yrs.). | | | | | | | | | | | | | | |
| | (10) Query sub-normal mentality ($2\frac{1}{2}$ yrs.)—in nursery, review later. | | | | | | | | | | | | | | |
| | (11) Query sub-normal mentality ($5\frac{1}{2}$ yrs.). | | | | | | | | | | | | | | |
| | (12) Query sub-normal mentality (12 yrs.) | | | | | | | | | | | | | | |
| | (13) Sub-normal mentality, plus Petit Mal (2 yrs. 9 mths.)—in Cottage Homes. | | | | | | | | | | | | | | |
| | (14) Epilepsy (6 yrs.)—in Cottage Homes. | | | | | | | | | | | | | | |
| | (15) Sub-normal mentality (mother epileptic), ($5\frac{1}{2}$ yrs.)—in Cottage Homes. | | | | | | | | | | | | | | |
| | (16) Sub-normal mentality (parents and brother feeble-minded), (6 yrs.)—in Residential Nursery. | | | | | | | | | | | | | | |
| | (17) Sub-normal mentality (6 yrs.)—in Cottage Homes. | | | | | | | | | | | | | | |

MINOR DEFECTS IN CHILDREN ADOPTED

- A. *Respiratory :*
- Bronchitis, 4.
 - Enlarged adenoids, 1.
 - Enlarged tonsils and adenoids, 2.
 - Otitis media, 2. (One post mastoid).
 - Post whooping cough debility, 2. (One with fibrosis).
 - Post pneumonia, 1.
 - Tuberculosis contact, 2.
- B. *Blood and Circulatory :*
- Secondary anaemia, 1.
 - Cardiac bruit, 3.
 - Prominent pulmonary artery (X-ray), 1.
- C. *Genito-urinary :*
- Hydrocele, 1.
 - Phimosis, 5.
 - Undescended testicle, 2.

D. *Congenital :*

Naevae	5
Localised diaphragm defect (5)	1
Laryngeal stridor	4
Unequal girth legs	1

E. *Miscellaneous :*

Mild infantile eczema	2
Seborrhoea scalp	3
General debility	1
Genu valgum	1
Indistinct speech	1
Strabismus	2
Asymmetry head and chest	1
Enlarged thymus	12
TOTAL	61

3 *Reviews from 1943—1949* (including 6 adopted children who attended on account of new signs subsequently).

	<i>Normal</i>	<i>No change in condition</i>
Slight eczema		1 (To Skin Hospital)
Anaemia	2	
Enlarged heart shadow	1	
Post-pneumonia	1	
Enlarged thymus	5	2
Acquired "weak back"	1	
Acquired stutter		1 (not serious)
Acquired tonsils and adenoids	1 (Removed at Birmingham Childrens Hospital)	
Acquired asthma		2 (To B'ham General Hospital (To own Dr.))
Acquired cardiac bruit		1 (slight)
TOTAL	18	

NATIONAL HEALTH SERVICE ACT

Co-operation between Authorities

Although the National Health Service Act has divided the control of the services between Local Health Authority, Regional Hospital Board, Board of Governors of Teaching Hospitals and Local Executive Council, legislation recognises that intimate co-operation between these bodies and their officers at all levels is essential to the success of the scheme as a whole. On this account statutory arrangements have been made whereby the Local Health Authority is represented on each of the other three statutory bodies. The Medical Officer of Health in this City is also a member of the Local Medical Committee, as well as of the Local Executive Council.

The Health Committee is in addition represented on the governing bodies of important voluntary associations which perform locally, duties under the Act.

At officer level intimate collaboration is obtained in the tuberculosis service by Chest Physicians holding dual appointments with the Local Health Authority and the Regional Hospital Board on the assumption that two-elevenths of their time is spent upon work within the purview of the Local Health Authority. This system is working extremely well, and there is scope for its extension to other fields with great advantage to the authorities, the officers and the public.

In addition, there is the most fruitful and pleasant liaison between the staffs in all branches of the services, originating partly in the fact that prior to the inception of the Act many were colleagues in Corporation Departments.

Information is constantly passing between the department and the infectious diseases hospital as to diagnosis of cases admitted, revisions in diagnosis and discharges. This and other hospitals give information of patients who are to be discharged and will require assistance from one or more of the services provided by the Local Health Authority under Part III of the National Health Service Act. With the concurrence of their private doctors the following numbers of patients have been attended by Home Nurses subsequent to their discharge from hospital :—

Cardiac	50
Bronchitis	3
Diabetic	182
Arthritis	5
Carcinoma	74
Senility	14
Other medical conditions	346
Tuberculosis	151

Home Helps assisted in the care of 106 elderly or sick patients prior to or after discharge from hospital. Twelve of these patients were tuberculous.

Prior to discharging patients, hospitals frequently draw attention to the need for loaning sick room equipment, arranging for convalescence, health visiting, etc.

Patients at hospital sometimes complain of unsatisfactory housing conditions which are then investigated by this department after receipt of the information from the hospital almoners.

Administrative Arrangements

In other parts of this report, namely, the *Maternity and Child Welfare* section, and that dealing with *General Epidemiology*, reference will already have been made to some of the services provided under this enactment, and in dealing with the problems which from day to day arise in the provision of this service it is vitally necessary that the various sections of the department concerned with the administration and organisation entailed should work in complete harmony of action. It is a pleasure to record that this is so, and in connection therewith the following administrative arrangements are in operation. The Deputy Medical Officer of Health, Dr. E. L. M. Millar, is responsible for Section 21—Health Centres, Section 26—Vaccination and Immunisation, and, in close liaison with the Chief Fire and Ambulance Officer, Mr. H. W. Coleman, Section 27—Ambulance Service, and part of Section 28—Prevention of Illness, Care and After-Care.

Dr. Jean Mackintosh, is responsible for the Maternity and Child Welfare section of the department providing the services under Section 22—Care of Mothers and Young Children, Section 23—Midwifery, Section 24—Health Visiting, Section 25—Home Nursing, Part of Section 28—Prevention of Illness, Care and After-Care, and Section 29—Domestic Help.

Section 28—Prevention of Illness, Care and After-Care calls for a very close and effective liaison between the various section heads, for under this section a variety of subjects are dealt with, health education, problems of the aged, the after-care services in connection with tuber-

culosis, the provision of certain items of equipment in conjunction with the Home Nursing service, convalescent care, the night watcher service which is linked with the Domestic Help service, a laundry service provided for the aged and infirm which is linked with the Home Nursing service, and the proposal to open a Home at Skilts Estate for the accommodation of children requiring segregation during the period of B.C.G. vaccination. The further item which remains is the Psychiatric Social Service, previously performed on our behalf by the National Association for Mental Health and now absorbed as an integral section of the department, for which provision is made under this Section (28) of the Act, but which is so closely allied to Mental Health that information relative to this part of the department will be found under Section 51.

Section 51—Mental Health—is at present the concern of Dr. W. R. Martine, who supervises the section dealing with mental deficiency and lunacy

HEALTH CENTRES—Section 21

The Minister of Health has indicated that he does not wish Local Health Authorities to acquire or appropriate sites for health centres unless there are exceptional circumstances to justify this. In exercising their powers as planning authorities under the Town and Country Planning Act 1947, they can, however, ensure that sites considered particularly suitable for health centres are not used for other purposes.

On this basis 19 sites have been earmarked for health centres, mainly in areas now being built upon for the first time. In choosing a site, regard is paid particularly to its ready accessibility by public transport. Proximity to schools and shopping centres is also a considerable advantage.

Pending the provision of health centres the Estates Committee is making available on new estates corporation houses from which doctors can practise. The intention is that when at a later date, health centres are erected in these localities the doctors will transfer their practices there. The design of the new houses for doctors is such that they could easily be converted into self-contained flats for normal housing purposes.

Plans were drawn during the year for a prefabricated building as a Health Centre at Stechford and, at the time of writing, further progress awaits the outcome of negotiations at a national level on the detailed conditions under which doctors will practice in health centres.

HEALTH CENTRE SITES

<i>District</i>	<i>Estimated population within easy reach of the centre</i>	<i>Remarks</i>
Stechford	13,000	Site acquired
Ridgacre Road, Quinton	16,300	do.
California, Weoley Castle	9,800	do.
Benacre Street, Bristol Street	10,600	do.
Kingston Hill, Small Heath	9,400	do.
Edgewood Road, Northfield	11,600	do.
Turves Green, Northfield	11,600	Site to be reserved by Public Works Dept.
Masshouse Lane, King's Norton	11,600	do. do.
Woodthorpe Farm Estate, King's Heath	12,800	do. do.
Handsworth Wood	15,600	do. do.
Dunedin Road, Kingstanding	12,600	do. do.
Tower Hill, Great Barr	18,100	do. do.
Shard End, Stechford	14,500	do. do.
Stud Lane, Stechford	14,200	do. do.
Tile Cross Road, Sheldon	14,500	do. do.
Elms Estate, Sheldon	12,800	do. do.
Aldridge Road, Great Barr	19,400	do. do.
Duddeston	14,700	do. do.
Hillyfields Estate, Harborne	9,700	do. do.

CARE OF MOTHERS AND YOUNG CHILDREN. —Sec. 22

MIDWIFERY

—Sec. 23

HEALTH VISITING

—Sec. 24

HOME NURSING

—Sec. 25

See
Maternity
and
Child
Welfare
Section

VACCINATION AND IMMUNISATION

—Sec. 26

See General
Epidemiology

AMBULANCE SERVICES—Sec. 27.

Hospital Removal Service

The increase in the number of patients carried in 1949 by this section as shown in the report for last year was maintained in 1950, when the figures reached a total of 232,098, an increase of 33,931 over the previous year.

Comparative figures showing number of patients carried in 1949 and 1950

	1949	1950	Increase	Decrease
January	14,560	19,909	5,349	
February	14,230	18,699	4,469	
March	16,760	20,923	4,163	
April	14,339	17,051	2,712	
May	16,280	20,511	4,231	
June	14,913	19,284	4,371	
July	16,454	19,256	2,802	
August	17,645	18,970	1,325	
September	17,345	19,287	1,942	
October	19,304	20,354	1,050	
November	18,204	20,103	1,899	
December*	18,133	17,751	—	382
	<u>198,167</u>	<u>232,098</u>		

* Heavy snowfalls in December, 1950, necessitated the cancellation of a large number of transport requests and account for the 1950 figures for December being lower than for the same period in 1949.

The following analysis into categories of cases shows that the major portion of the increase is in patients attending various clinics but the figure for admissions to, and discharges from, hospital have also risen.

Analysis

	1949	1950
Clinic cases	137,902	167,029
Admissions	19,693	22,414
Discharges	26,114	28,871
Transfers	5,674	5,289
Emergency Maternity Service	135	111
Maternity cases	7,313	7,378
Miscellaneous	1,336	1,006
TOTALS	<u>198,167</u>	<u>232,098</u>

Division of cases into Stretcher and Sitting Cases

	1949	1950
Sitting cases	149,053	182,491
Stretcher cases	49,114	49,607
Totals.....	<u>198,167</u>	<u>232,098</u>

Cases requiring Transport outside the City Boundary

As indicated in the report for 1949 a measure of relief from this type of work has been experienced during the period under review following the introduction of the National Health Service (Amendment) Act 1949. Under Section 24, the financial responsibility, for the cost of conveying back home patients who have been in a hospital in another local authority area for a period not exceeding three months, is that of the authority from whose area the patient travelled into hospital and to which the return journey has been made.

Although the statutory responsibility to provide transport for the return journey in such cases rests with the authority in whose area the hospital is situated, by arrangement with our neighbouring authorities, they are given the opportunity of conveying those patients for whom they are financially responsible, in their own ambulances which visit City hospitals frequently during the day. The effect of this has been to reduce the number of journeys made to places beyond the City boundary to return home patients from outside Birmingham.

As there has been an increase in the number of patients conveyed to hospitals outside the City for treatment at clinics and brought back the same day, it has been thought advisable to indicate them separately.

The figures for journeys to and from points outside the City are therefore as follows :—

Number of cases from outside the City into hospital	...	...	1,989
Number of cases from City hospitals to outside the City	...	...	4,818
Number of cases from City to hospitals outside the city	...	...	509
Number of cases from hospitals outside City back into City	...	...	495

(These figures have been included in the totals given above.)

Outposted Ambulances

The policy of segregating ambulances to deal with infectious cases and tubercular patients has been continued and figures for the year show a considerable increase over 1949 mainly due to the amount of work being undertaken within the grounds of the hospitals concerned, i.e., Yardley Green and Little Bromwich Hospitals.

The arrangements under which an ambulance is allocated to Monyhull Hall Colony were continued, and it is noted that there was only a very small increase in the number of patients carried when compared with 1949.

Comparative figures for 1949 and 1950 are given below :—

	1949		1950
Monyhull Hall Colony (55 outside City)	652	(33 outside City)	658
Little Bromwich Hospital (52 outside City)	2,791	(68 outside City)	3,172
Yardley Green Hospital (26 outside City)	1,709	(207 outside City)	3,332
	<hr/> 5,152		<hr/> 7,162

Accident Ambulances

The eight accident ambulances, manned by firemen, and providing the necessary cover for all emergency and accident calls, responded to 13,457 calls as compared with 11,894 in 1949, an increase of 1,563. The following tables show the types of accidents and injury for which ambulance calls were received :—

Location of Accidents

Street accidents (involving vehicles)	2,620
Factory accidents	995
Private houses	4,511
Offices	77
Shops and restaurants	301
Outdoor (other than street accidents)	3,006
Licensed premises	213
Schools	350
Cinema and theatres	155
Other premises	1,174
False alarms	55
	<hr/>
	13,457
	<hr/>

Types of Injury

Fractures	2,175
Wounds	2,731
Collapse, fits, strokes	2,807
Abrasions and bruises	477
Gas poisoning	146
Drowning	24
Eye injuries	141
Dislocation and sprains	614
Hanging	7
Concussion, shock	630
Haemorrhage	436
Scalds and burns	393
Poisoning	213
Services not required	877
Not classified	1,731
False alarms	55
	<hr/>
	13,457
	<hr/>

The number of casualties in the calls to street accidents (involving vehicles) was 3,207, of which 36 were dead before the arrival of the ambulance or died on the way to hospital.

Injured Persons

The table on page 182 shows the incidence of accidents during the hours of the day, in relation to the age groups of persons involved :—

Hospitals to which Casualties were removed

Accident Hospital	.....	.....	.....	.....	.....	.....	.....	4,610
General Hospital	.....	.....	.....	.....	.....	.....	.....	5,286
Other Hospitals	.....	.....	.....	.....	.....	.....	.....	2,292
Not taken to Hospitals	.....	.....	.....	.....	.....	.....	.....	1,269
								<hr/>
								13,457
								<hr/>

Method of Transmission of Calls

Exchange Telephone	.....	.....	.....	.....	.....	.....	.....	3,133
" 999 " system	.....	.....	.....	.....	.....	.....	.....	7,461
Police information room	.....	.....	.....	.....	.....	.....	.....	2,100
Street fire alarm	.....	.....	.....	.....	.....	.....	.....	35
Messenger	.....	.....	.....	.....	.....	.....	.....	444
Direct line	.....	.....	.....	.....	.....	.....	.....	250
Wireless cars	.....	.....	.....	.....	.....	.....	.....	17
Observed	.....	.....	.....	.....	.....	.....	.....	17
								<hr/>
								13,457
								<hr/>

Mileage Statistics

	<i>Removal Ambulances</i>	<i>Accident Ambulances</i>	<i>Outposted Ambulances</i>	<i>Mileage Total</i>
January	109,565	6,091	5,595	121,251
February	101,600	7,859	5,752	115,211
March	115,920	7,214	6,906	130,040
April	104,137	5,851	5,834	115,822
May	116,628	7,528	7,329	131,485
June	110,510	8,200	7,755	126,465
July	108,169	8,019	8,207	124,395
August	106,036	8,262	7,113	121,411
September	105,018	7,758	8,337	121,113
October	112,920	9,089	8,249	130,258
November	114,556	6,820	8,564	129,940
December	98,778	8,387	7,008	114,173
<hr/>				
Total	1,303,837	91,078	86,649	1,481,564
<hr/>				

Catastrophe Service

There were no calls in 1950 on this Service, which provides for the response of a predetermined number of ambulances, fire appliances and special apparatus to any large scale incident.

Age Group		HOURS OF DAY																								Total		
		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
5 and under	23	4	5	2	1	—	2	—	4	3	7	30	39	65	70	99	75	77	105	98	116	92	75	52	50	40	33	1176
6-10	7	5	2	1	—	2	—	4	17	30	30	34	60	67	71	79	112	105	94	84	70	40	15	10	959			
11-15	10	5	3	1	2	—	2	7	22	32	33	65	80	68	74	83	85	74	58	79	73	42	20	10	928			
16-20	30	12	12	4	3	4	4	20	44	37	49	46	55	52	51	60	70	67	62	42	66	81	90	59	1020			
21-25	56	35	10	6	7	6	9	22	43	53	50	46	66	60	69	69	69	65	65	50	45	56	93	111	1161			
26-30	60	26	15	13	8	5	11	32	51	46	34	51	59	59	51	86	60	49	61	56	59	62	103	89	1146			
31-35	30	17	9	9	5	3	6	26	27	34	37	51	56	39	52	50	52	50	45	36	31	41	77	61	844			
36-40	39	21	8	9	7	2	10	19	33	40	43	62	57	54	64	77	62	47	50	30	35	41	79	74	963			
41-45	31	17	8	10	3	2	3	22	27	29	39	38	41	35	56	48	42	50	50	40	29	36	57	45	758			
46-50	22	14	11	3	4	5	11	20	23	33	40	39	50	46	60	47	31	37	42	35	35	32	63	64	767			
51-55	32	11	9	5	—	8	7	14	28	25	34	38	41	36	48	36	40	40	31	28	17	32	62	37	659			
56-60	15	8	5	6	4	4	12	21	29	44	48	40	48	45	32	33	30	44	37	27	24	29	63	34	682			
61-65	19	13	3	5	1	5	6	17	25	35	35	28	32	34	36	44	47	41	27	34	31	20	46	30	614			
66-70	11	5	5	2	3	3	7	12	15	31	42	30	47	33	61	32	28	47	36	25	20	21	40	21	577			
Over 70	19	14	4	3	6	8	8	20	26	38	50	105	98	87	89	80	59	68	75	60	48	54	60	39	1118			
TOTAL	404	207	109	85	59	61	99	263	440	546	629	763	889	790	891	929	885	900	825	701	635	637	908	717	13372			

Ambulance Fleet

The strength of the ambulance fleet on 31st December, 1949, was made up as follows :—

General Purpose Ambulances	62
Clinic Ambulances	24
Cars	5
Mobile Surgical Unit	1
	<hr/>
	92
	<hr/>

The augmentation of the fleet, foreshadowed in the report for 1949, was found necessary when the daily total of patients carried passed the 900 mark. Due to the increased mileage run in carrying such a large number of patients it was found impossible to maintain the necessary servicing and repair programme with the number of reserve vehicles allowed for this purpose. Approval has therefore been sought and obtained for an increase of three in the size of the fleet.

The following schedule shows the changes which have taken place in the composition of the fleet during 1950 and the proposed strength during 1951 :—

Strength as at 31st December, 1949	92
Number of vehicles taken into service during 1950	17
	<hr/>
	109
Vehicles scrapped or disposed of during 1950	10
	<hr/>
	99
Strength as at 31st December, 1950 :	
General Purposes Ambulances	73
Clinic Ambulances	22
Cars	3
Mobile Surgical Unit	1
	<hr/>
	99
	<hr/>

Augmentation Programme 1951

New Ambulances on order	7
New Ambulances required for replacement under disposal programme	12
New Ambulances required for augmentation of the fleet	3
	<hr/>
	121
Vehicles to be disposed of in 1951	22
	<hr/>
	99
	<hr/>

Mobile Surgical Unit

The Birmingham Fire and Ambulance Service continued to operate the Mobile Surgical Unit during 1950, but it is anticipated that this responsibility will shortly be undertaken by the Regional Hospital Board as part of the hospital services.

Staff

The increase in the number of vehicles in the fleet would have been useless without a review of the establishment of ambulance staff and this was undertaken and submitted early in the year. Due to difficulty in recruiting suitable personnel to implement the policy of full integration of the fire and ambulance services it was also decided that, in future, separately engaged staff would be used on the ambulance service.

A completely new establishment for the ambulance service was therefore approved early in the year and the schedule below gives both establishment and strength as at 31st December, 1950.

	<i>Establishment</i>	<i>Strength</i>
Staff Officer	1	1
Hospital Liaison Officer	1	1
Control Officer	1	1
Senior Control Operatives	8	5
Control Operatives	14	17
Depot Superintendent	1	1
Deputy Depot Superintendent	1	1
Leading Drivers	15	11
Drivers	119	106
Attendants Male	40	25
Attendants Female	12	12
Midwives	12	14*
TOTALS	225	195

* Includes 4 part-time.

These figures do not include additional administrative staff which were recruited to the Fire Brigade as a consequence of the taking over of the ambulance service.

Voluntary ambulance crews drawn from members of the St. John Ambulance Brigade continued to man ambulances for periods each evening and at week-ends. Such assistance has been valuable to the service in making more ambulances available, and forms a means whereby such volunteers can continue to practise their specialised duties.

Hospital Car Service

The Hospital Car Service, administered by the British Red Cross Society, continued its work on behalf of the Birmingham Fire and Ambulance Service and the schedule of monthly mileages for 1949 and 1950 given below shows a continued increase.

Hospital Car Service Mileages

	1949	1950
January	15,476	21,362
February	16,579	17,431
March	17,175	21,564
April	15,907	15,200
May	18,504	20,484
June	16,407	21,488
July	14,117	21,925
August	14,559	17,174
September	15,543	20,250
October	16,243	17,297
November	20,855	18,851
December	20,905	13,427
	<u>202,270</u>	<u>226,453</u>

Liaison with Hospitals and Doctors

With the gradual settling down of the Service it has been found possible to reduce the number of Hospital Liaison Officers from two to one, without impairing the good relations existing between the service and hospital authorities. Suggestions for improving facilities for the reception of patients at hospitals have been made to the appropriate authorities and have been acted upon, where possible, to the mutual benefit of all interested parties.

Bed Bureau

A further increase in the year's work of the bed bureau is noted. The Birmingham Fire and Ambulance Service continue to operate the bureau from the central ambulance control on behalf of the Regional Hospital Board and the success attained in assisting medical practitioners to obtain admissions for emergency cases is shown in the following figures :—

	1949	1950
Requests for admission to Hospital	11,750	12,175
Beds obtained through Bed Bureau	10,666	11,403

Convalescent Care

The arrangements for convalescent care continue to be effected in collaboration with the Birmingham Regional Hospital Board, and the Governing Body of the Birmingham Teaching Hospitals, through the almoners of their respective hospitals :—

- (a) for hospital patients, passing in the usual way through the almoner's hands for convalescent care. In so far as this is for recuperation, as distinct from medical convalescence, the charges and the travelling expenses (where necessary) are met in the first instance by the Health Committee, subject to appropriate refund to the Committee by the patient on a scale depending on his circumstances. This relates to patients not entitled to convalesce through being contributors to the Birmingham Hospital Saturday Fund, which makes extensive provision of convalescent homes for its members ;
- (b) for patients under domiciliary medical care, where the practitioner recommends recuperative convalescence. In such cases the patient (where not a contributor to the Birmingham Hospital Saturday Fund), is referred by his practitioner to a convenient hospital with a request to the almoner to arrange recuperative convalescent care, as though he were a hospital patient. The charges, subject to appropriate refund, are met by the Health Committee, as in the case of the patient proceeding from hospital to a convalescent home.

The year has again shown that there exists a very definite demand for recuperative convalescence following illness, and 1,802 applications were made through the Birmingham Hospitals as follows :—

<i>Hospital</i>	<i>General Practitioner Cases</i>	<i>Hospital Cases</i>
General Hospital	136	162
Queen Elizabeth Hospital	10	237
Children's Hospital	78	106
Women's Hospital	3	23
Selly Oak Hospital	88	405
Dudley Road Hospital	161	229
Accident Hospital	8	44
Skin Hospital	—	5
Eye Hospital	—	34
Maternity Hospital	—	12
Nerve Hospital	—	30
Royal Orthopaedic Hospital	—	31
TOTALS	484	1,318
GRAND TOTAL	1,802	

Seventy-five applicants (4·17%) did not receive convalescent care, and of this number 43 were mothers and babies, persons suffering from asthma and cardiac conditions, and elderly patients who could not be accepted for convalescence. The remaining 32 were young children for whom accommodation could not be found.

The following age groups relate to those for whom accounts were received by the Public Health Department from the various Hospitals and for whom the Health Committee have accepted financial responsibility. In regard to the remainder of the applications for convalescence, these have either had convalescence through the Birmingham Hospital Saturday Fund, or have paid for their own convalescent care.

<i>Ages</i>	<i>No. of cases</i>
0— 5 yrs.	31
5—15 yrs.	22
15—21 yrs.	41
21—40 yrs.	140
40—55 yrs.	138
55—65 yrs.	98
Over 65 yrs.	133
 TOTAL	 603

The total cost borne by the Health Department for the provision of this care was £3,759 8s. 1d.

Venereal Disease

Statistical information relative to this disease will be found under *General Epidemiology* (page 70). Although the curative side of the work involved with venereal disease is the concern of the Regional Hospital Board, during the year many enquiries were received from persons desiring to obtain treatment, and appropriate information was given as to where treatment may be obtained, which is as follows :—

- (1) General Hospital, Steelhouse Lane.
- (2) Maternity and Child Welfare Clinic, Lancaster Street.
- (3) Children's Hospital, Ladywood Road.

All Service cases returning to civilian life in Birmingham and all civilian contacts of Service cases are notified to the Medical Officer of Health. These cases are referred to the venereologist at the General Hospital, and investigated by the social worker attached to his department.

Health Education

Within the department there is a special section dealing with health education, which comes under the immediate supervision of Dr. Jean M. Mackintosh. The work of this section is supplemented by lectures, demonstrations, etc., which are given from time to time by other sections of the department, reference to which will follow the initial item dealing with the health education section.

The health education section continues to expand, although the lack of adequate accommodation has caused an added strain on the staff. Insufficient space has also made it impossible to increase the equipment required for demonstration purposes. It is hoped to remedy this state of affairs early in 1951.

Health Talks at Centres by Health Visitors

Talks were given at welfare centres by health visitors to 58,832 mothers. In addition, health visitors attended antenatal clinics at Dudley Road Hospital and the Maternity Hospital, Loveday Street, to give talks on health education. A total of 78 talks were given at these two hospitals.

Lectures given

	1949	1950
Lectures to schools	1,819	2,028
Lectures to youth organisations	320	443
Lectures to adult groups	440	553
	<hr/> 2,579	<hr/> 3,024

Teaching in Schools

Courses of lectures in schools continue to increase in both 11+ and 14+ groups.

Youth and Adult Organisations

There has been a steady increase in numbers of lectures given in both these groups.

1. Westhill Training College. The usual number of lectures on health education were given to the Student Teachers at Westhill Training College. As in previous years, visits to the infant welfare centres and day nurseries were arranged for the students.
2. H.M. Prison, Winson Green. Six courses of lectures were given during the year, three to the Men's Section and three to the Women's Section. Each course comprised 13 weekly lectures or lecture demonstrations. Each course of lectures is designed to be complete in itself, so that the short-term prisoners will get the maximum benefit from them. In April and December, a display of health education material was shown in the Prison.

3. Regional Courses in Parentcraft Teaching. The course of eight one-hour lectures on parentcraft teaching, which began in 1949, was completed in January, 1950.
4. Lectures to Housemothers. A course of 14 lectures on "Elementary Hygiene" and "Child Care," were given to the Housemothers and Assistant Housemothers at Erdington Cottage Homes and Shenley Fields Cottage Homes.
5. Remand Homes. Arrangements have now been made to give a course of lectures and talks at all the City Remand Homes.
6. Continuation Schools. Courses of hygiene and mothercraft have now been extended to the junior staff in three city stores.
7. Children's Cinema Clubs. The manager of a well-known cinema invited one of our lecturers to attend once a month to give short talks on health and hygiene to the children. This proved so successful that a member of the staff now attends each of three cinemas of this group once a month.

Birmingham Accident Prevention Council

The Annual Exhibition on Road Safety was held in a city store, and the Birmingham Accident Prevention Council again invited the health department to contribute to the section on home safety. This year emphasis was placed on the great need to have fire-guards over gas and electric fires, as well as coal fires.

The Central Council for Health Education—Exhibition Stand

The above stand for displaying various health education topics has been obtained on permanent loan from the Council. The displays are changed from time to time, and, as far as possible, the theme links up with that of the Poster Campaign.

Poster Campaign

Sixty-five posters on health topics are displayed in public places throughout the City. These are changed at frequent intervals. The topics are varied according to prevailing conditions.

Filmstrips

There has been a considerable demand for our filmstrip "Clean Food" of which we have sold 15 copies during 1950. Two further filmstrip projectors have been purchased, and are in daily use. There is an increasing demand for filmstrips to illustrate various talks and lectures.

This department has just produced a new coloured filmstrip on "Prevention of Accidents in the Home."

Out of City Lecture Demonstration

A member of the health education staff attended the post-graduate refresher course for health visitors in London on November 20th, and gave a lecture and demonstration on "Health Education and the use of Visual Aids."

Clean Food Campaign

This campaign to educate the food handler was instituted in October 1947, under the general supervision of Dr. W. R. Martine, in an endeavour to effect a reduction in the incidence of infection from contaminated food and drink. The campaign has continued since that date, and the following lecture-film demonstrations were given during the year under review :—

	<i>No. of Lectures</i>	<i>Total Attendances</i>
Food Trades	8	177
General Public	27	817
	35	994

These figures show a decrease in voluntary effort on the part of the Food Trades as compared with previous years. This is probably coincident with the fact that the campaign has been in operation for a little over three years. The projected formation of a Clean Food Guild together with the publication of the Report of the Meat Products Working Party and the anticipated publication of the Report of the Catering Trade Working Party have been instrumental in reviving, during the autumn of the year, what had seemed to be a waning interest. Noteworthy also as a source of stimulus has been the film "Another Case of Poisoning," which became available early in the year. Subject only to the criticism that a supporting talk is absolutely necessary, this film is designed to create, and appears successful in creating, a clean food mindedness in both food handler and members of the public. It has certainly been happily received, as shown by increased requests in the last few months. The film strip "Clean Food," which was made in the department, has also been regularly shown to junior and lay audiences.

Following a meeting of all interested trades and organisations, a Committee has been formed with a view to establishing a Clean Food Guild, and it is expected that, following publication of the Report of the Catering Trade Working Party, a code, or codes, of practice will be drawn up, and membership invited. The Guild will be organised and administered largely by the Food Trades themselves, its committee consisting of representatives of a variety of these trades, of certain interested women's organisations and of the Health Committee.

The success of such a venture must, however, depend upon widespread application and qualification for membership and the voluntary adoption of a hygienic standard considerably higher than that required by Section 13 of the Food and Drugs Act, 1938, and by the Byelaws as to the Handling, Wrapping and Distribution of Food, which became operative during the year.

Due reference should be made, however, to the excellent work which has been undertaken by the staff of sanitary inspectors who have done a great deal by the manner in which they have approached the every-day problems which have arisen in connection with the supervision of food preparation premises, to effect a happy relationship between the catering trade and this department.

Education in Smoke Abatement.

In all probability the most important danger from smoke nuisance is respiratory disease, while the least appreciated fact about smoke is that the ingredients of domestic smoke are undeniably more dangerous to health than are the constituents of industrial smoke. In the former sulphur and tar acids predominate ; in the latter grit creates the chief nuisance.

Education in these matters must, therefore, work along the lines of education of the domestic user as well as of the boiler and furnace fireman. While teaching of the latter is dealt with elsewhere, it is appropriate to refer here to a filmstrip recently made available through the Gas Council jointly with the National Smoke Abatement Society. This, when supported by a suitable commentary, has been well received by the lay audience.

Sanitary Conditions

The sanitary inspectorial staff have given no fewer than 21 talks to various organisations and clubs such as the Townswomen's Guild, Birmingham Co-operative Society's Men's and Women's Guilds in different parts of the town, religious and social organisations, and the St. John Ambulance Brigade. These talks have been relative to the work of this particular section of the department. They have been well attended and it is pleasing to note that in each case the audience showed a great deal of interest, and expressed no little surprise at the wide field of work covered by the sanitary inspector.

It is therefore of importance that such lectures are given and they bring to the knowledge of the community the facilities which are available through the department for the remedy of defects in housing and the manner in which investigations are carried out with a view to preventing the spread of disease in a large City.

Analytical Laboratory

The City Analyst has also participated in the propagation of health education by the giving of lectures to adult schools, youth clubs and again the Townswomen's Guild, thus giving an opportunity for those interested to be made aware of the safeguards provided by his particular section of the department.

Care of the Aged and Chronic Sick

This problem has received very serious consideration in an endeavour to overcome difficulties which are by no means easy of solution. The problem is aggravated on the one hand by the acute shortage of hospital beds for this particular type of case and in no small manner on the other hand by the reluctance of many of the cases concerned to seek admittance to suitable accommodation or to accept the advice of their medical practitioner in this respect. It is observed on some occasions that those in dire need of attention have been reluctant even to take advice on the medical issue affecting them. They are found, in many instances, to be without relatives, entirely dependent on kindly neighbours, the latter often having large families of their own to care for and affording help to the old people under extreme difficulties. Information as to cases in need is derived from many sources—the general practitioner, a member of the City Council, social workers, officers of the National Assistance Board, relatives living in or outside the City, neighbours, and even passers-by or casual callers. It is often the case, however, that their need, when the information has been received in the department, has reached the stage where it becomes a major issue requiring prompt action. In the most urgent of cases the medical practitioner may have recommended admission to a chronic ward of an institution, but owing to lack of bed accommodation it has not been possible to effect admission. The close and friendly working which has persisted throughout the year between the department and the medical practitioner service has then been brought into effect, and in such cases where the need is so great, that the services provided by the department are inadequate for the needs, and the domiciliary conditions have deteriorated since the practitioner's recommendation, the hospital authorities, through their kindly co-operation, have acceded to our request for priority of admission of the case to hospital.

Since the end of 1949 two senior health visitors have been undertaking the visiting of the aged in their own homes. The majority of cases dealt with are those referred by the Almoners of the various hospitals with the exception of Dudley Road Infirmary, which has adopted a system whereby all cases on their waiting list are visited at their homes by a Hospital Medical Officer, and assessed according to their medical or social needs. This system is one which is proving of great value as it ensures early admission of the most urgent cases. The help of this department is asked for in those cases which are in need of domiciliary services, whether home help, district nurse or night watcher. In some instances hospital admission can be deferred or even avoided by the provision of these facilities.

Towards the end of the year Selly Oak Hospital asked this department to visit a certain number of the old people whose names had been on their waiting lists for some considerable time, and where the social conditions were considered by the general practitioners to be unsatisfactory.

In regard to the facilities provided by this department for the domiciliary care of this group, the greatest demand is for that of the home help. The yearly figures show that 30% of these demands were still not met at the end of the year. A further 15% would have benefited from this service but refused either because they did not wish for any improvement in their existing conditions or because the assessment appeared to them to be beyond their means.

The need for help during the night soon became obvious not only for those old people living alone but in cases where the relatives were requiring some relief for day and night care over a prolonged period.

A "night watcher" service was started in October, 1950. This has been a difficult service to inaugurate and is not easy to maintain, but is proving of great value.

Arising out of the visits, certain people have been considered suitable for admission to Welfare Homes and have been referred to the Welfare Department for consideration.

It was suggested earlier in the year that a "Meals on Wheels" service would be of great benefit, but on investigation it was found that in those cases which were the responsibility of this department, meals were being provided either by the home help, or relatives, and neighbours.

Good contact has been made with relatives, the majority of whom will accept some responsibility when the need has been pointed out to them, especially when they realise that it may be only of a temporary nature.

Number of individual cases visited		565
Number requiring Home Helps		145
Number of Home Helps supplied	65	
Number awaiting Home Helps	54	
Number not prepared to accept Home Helps	26	
Number requiring District Nurse (and supplied)		16
Number requiring Meals on Wheels		16
Night Watchers supplied		14
Recommended for admission to Welfare Home		21
Subsequent Visits		224
Deaths		91
Admitted to Hospital		89
Number still awaiting admission to Hospital		7
Office interviews		161

In pursuance of our aim to ensure that adequate arrangements are made for the care of aged and infirm persons, the Committee have given very active consideration to the provision of laundry facilities for such persons, together with the supply on loan of bed linen and single beds where the medical condition of the patient warrants such a course. The department's laundry at Bacchus Road would be utilised for the purpose of providing laundry facilities, and it will be necessary to purchase the necessary items of bed linen, etc., for use in this new venture. Suitable

charges are to be made for the service, and it has been agreed that the maximum inclusive charge for the loan and laundering of a complete set of bed linen shall be 2/- for each occasion when it is necessary to launder the articles concerned, which it is anticipated will in the majority of cases be either once or twice per week. The amount actually payable by each person would be assessed in accordance with their financial means. A scale of assessment has been drawn up. The laundry service will be provided only in respect of items supplied by the department. When the scheme is inaugurated, and this it is hoped to do early in 1951, it will be limited to approximately 50 persons, in order that working experience may be gained.

The scheme, it is felt, has a dual purpose in that it provides facilities for the care of the aged at home, and also this provision would possibly enable aged and infirm patients at present occupying beds in institutions under the control of the hospital authority to return home and to be nursed therein at a substantially lower cost than applies in an institution. One more instance can be cited here of the manner in which co-operation is effected between the hospital authority and the health department, to the extent that when the Ministry of Health saw fit to withhold approval at the time of the initial submission of proposals for this scheme, contact was made with the Regional Hospital Board and arising therefrom the Health Committee re-submitted their proposals together with a strong recommendation from the Board emphasising the value of the institution of the laundry service both to the community and to the administration of the hospitals dealing with this particular type of case.

The problem thus far has been dealt with mainly from the point of view of the department on information derived from the practitioner or other sources mentioned, and the close liaison which has been effected with the hospital authorities. There is, however, another important link in this chain, namely, the Welfare Department which provides facilities under the National Assistance Act. Difficulties experienced by this department in dealing with any particular problem relative to such persons which are not possible of solution by the services available to us, or by admission to hospital, are the subject of reference to the Welfare Department. Similarly, if a case which has been considered by the Welfare Department cannot be aided by the services available to that Department and may come within the scope of our purview, it is referred to us. There is therefore a tripartite action undertaken within the City which ensures that the needs of this class within the community are fully investigated and no effort is spared to make the remaining years of their lives as comfortable as possible. There is another aspect of the problem of the aged which is dealt with by the Birmingham Council for Old People, and it is felt that this organisation is invaluable in a city such as Birmingham where there are, no doubt, numerous cases falling outside the scope of our activities who nevertheless receive help and comfort through the facilities provided by this voluntary body.

Loan of Equipment

Under this very extensive section of the National Health Service Act, special equipment falling outside the scope of the general term "sick-room equipment" is made available, and a selection of the items which have been provided during the past year is set out below. These special items are generally supplied on the production of a medical certificate submitted either by the hospital discharging the patient or by the general practitioner or, after due consideration of all the factors involved, by a member of the medical staff of the department. Charges can be levied, assessed according to the patient's means, and we have found by experience that this particular service has been well received and has been a source of great benefit to persons who could not otherwise afford to obtain such an item. It will be noted that crutches and wheel-chairs appear in the list. These latter two items are only supplied on temporary loan, it being considered that permanent requirements should be met through the services provided by the hospital authorities.

List of Equipment and Apparatus loaned during period 1st January to 31st December, 1950

Wheel chairs	162
Merlin chairs	11
Spinal carriages	3
Stairway chairs	4
Special mattresses	6
Bedsteads	5
Fracture Boards	4
Lifting pole and chain	1
Special self-operating tilting bed	1
Elsan closet	1
Crutches, pairs	4

The above are additional to the normal items of "sick room equipment" available on loan to persons in need. The following is a list of items of ordinary "sick room equipment" issued during the year:—

Invalid chairs	180
Air/water beds	70
Air rings	700
Back rests	196
Bedpans	742
Leg cradles	44
Mackintosh sheets	556
Urinals	229
Sick feeders	30
Commodes	20
Mattresses	9
Miscellaneous items	65

Dr. Geddes, in the section of the report dealing with tuberculosis, has given details of the arrangements made in that particular section of the department for the domiciliary care and after-care of the tuberculous. It will be noticed that there is very close co-operation between this service and those provided by the maternity and child welfare section of the department, namely, the home nursing and domestic help services, in affording this care.

DOMESTIC HELP—Section 29. See Maternity and Child Welfare Section.

MENTAL HEALTH—Section 51

It may perhaps be of interest if before setting out the particulars required by the Ministry of Health some brief reference is made to the work and organisation of this section of the department. Whilst there are three distinct sections, the administration is co-ordinated in the head office. The sections concerned are :—

- (i) that dealing with mental deficiency ;
- (ii) duly authorised officers, concerned with the Lunacy and Mental Treatment Acts, and
- (iii) the Psychiatric Social Service, concerned with the pre-care and after-care of cases of mental ill-health.

Owing to the lack of accommodation in the main building, they are located in two instances in buildings within the City Centre, the remaining section in a building approximately one mile from the City Centre. It will be noted that the Education Committee undertake the management of occupation centres on behalf of the Health Committee, and this arrangement has been effective to date.

The following particulars are set out in compliance with the request of the Ministry of Health.

1. Administration

(a) Mental Health Sub-Committee of Health Committee, composed of Chairman and nine members of the Health Committee. Monthly meetings are held.

(b) *Numbers and qualifications of staff.*

Psychiatrists—(part-time)—2.

M.D., D.P.M. (Mental Deficiency).

M.R.C.S., L.R.C.P., D.P.M. (After-care).

Certifying Medical Practitioners—(part-time)—10.

- (i) M.D., F.R.C.S.E.
- (ii) M.B., B.Ch., B.A.O. (and Deputy-M.B., B.Ch., B.A.O.).
- (iii) M.B., Ch.B. (and Deputy-M.B., Ch.B.).
- (iv) L.R.C.P., L.R.C.S., L.R.F.P.S.
- (v) L.R.C.P.I. and L.M., L.R.C.S.I.
- * (vi) M.R.C.S., L.R.C.P., D.P.M.
- * (vii) M.D., D.P.M.
- * (viii) M.D., L.R.C.P., L.R.C.S., L.R.F.P.S.
- * (ix) M.B., Ch.B., D.P.M.
- * (x) M.A., B.M., B.Ch., D.P.M.

* These medical practitioners are of consultant status and were authorised, additionally, during the year, to certify in cases where, having been called out in consultation, they find that certification is necessary.

Inspectors (Mental Deficiency)

Chief, Deputy and three Inspectors : no academic qualifications, but all possessing long experience.

Clerical staff : 4 clerks, full-time, share of general clerical staff.

Occupation Centres and After-care (under management of Education Committee on behalf of Health Committee).

6 Supervisors (2 hold Diploma of National Association for Mental Health ; remainder no specific qualifications).

7 Assistant Supervisors.

6 Attendants.

1 After-care Officer—National Froebel Certificate ; Social Science Diploma, Qualified Teacher.

- 4 After-care Visitors :
- (i) B.A. (Honours). Social Science Diploma.
 - (ii) State Registered Nurse. Domestic Science Diploma.
 - (iii) Long practical experience.
 - (iv) As Special Schools After-care Visitor.

Duly Authorised Officers (Lunacy and Mental Treatment Acts)

Chief, Deputy and three authorised officers : no specific qualifications, but, except for one officer appointed in 1949, all have long experience in the work.

Clerical Staff : 1 clerk, full-time, share of general clerical staff.

Pre-care and After-care (Lunacy and Mental Treatment Acts), (Since April, 1950)

Senior Psychiatric	B.A. Hons. (Oxon.), B.A., Hons. (Lond.),
Social Worker :	(Psychology). Mental Health Cert.
2 Social Workers :	(1) Social Science Diploma.
	(2) Social Science Diploma.
Clerical Staff : One, full-time.	Share of general clerical staff.

(c) *Co-ordination with*

i. Regional Hospital Board, by frequent consultation with the Regional Psychiatrist in regard to the admission of mental defectives to institutions, and in connection with problems relating to patients of unsound mind.

ii. Hospital Management Committees, by enquiry and correspondence as necessary, and by supervision of patients discharged from mental hospitals, and of defectives discharged, or on licence, from mental deficiency institutions.

(d) *Duties delegated to Voluntary Associations.*

The regional staff of the National Association for Mental Health were transferred to the direct service of the Health Committee in April, 1950.

Prior to that time pre-care and after-care of cases of mental illness were undertaken by the regional office staff, as agents of the Health Committee.

(e) *Training of Mental Health Workers*

Two authorised officers attended a two-weeks' intensive residential course for authorised officers at the University of Sheffield during the year.

2. Account of Work Undertaken in the Community

(a) Under the Mental Deficiency Acts, 1913-1938.

i. *Ascertainment : (1949 figures in brackets)*

Reported during 1950	268	(261)
In institutions at 31st Dec., 1950	2,205	(2,245)
Awaiting admission at 31st Dec., 1950	180	(168)

ii. *Guardianship and Supervision : (1949 figures in brackets)*

Under guardianship	41	(49)
Under statutory supervision	2,515	(2,551)
On licence from institutions*	238	—

iii. *Training : (1949 figures in brackets)*

In occupation centres	198	(181)
Receiving home teaching	29	—

* The cases on licence are supervised on behalf of the respective Hospital Management Committees. The majority of these patients are earning their living, and are engaged in a variety of occupations, *e.g.*, domestic service, hotel service, factory work, building trades, Corporation Parks, Salvage and Public Works Departments. Several children on licence attend occupation centres.

The accommodation for mental defectives requiring residential care continued to be far short of the City's needs, and the growing waiting list for admission has been a source of grave concern.

(b) Under the Lunacy and Mental Treatment Acts, 1890-1930.

1,687 cases were dealt with by the duly authorised officers, classified as follows :—

<i>Classification</i>	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>Aug</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>	<i>Total</i>	<i>1949</i>
Certified ...	60	55	67	39	48	52	44	43	44	37	46	45	580	687
Voluntary	40	40	55	38	61	75	57	53	72	61	56	47	655	636
Temporary	—	—	—	1	—	1	—	—	—	2	1	2	7	20
Sec. 20 Lunacy Act ...	10	7	10	11	10	15	8	10	11	9	2	9	112	144
Sec. 21 Lunacy Act	8	3	9	2	11	6	9	4	16	15	11	9	103	67
Urgency Orders	1	1	3	3	1	6	7	2	5	3	3	3	38	30
Not certified	15	17	20	13	12	8	20	8	11	10	15	23	172	180
Other cases ...	1	1	1	2	1	2	2	2	3	—	1	4	20	15
Total cases dealt with, 1950	135	124	165	109	144	165	147	122	162	137	135	142	1687	1779

(c) Under Section 28, National Health Service Act, 1946.

After-care of persons discharged from hospital and pre-care of selected cases—either ex-service or persons referred with a view to certification but found not to be certifiable—has been undertaken as set out in the following table :—

	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>Aug</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>	<i>Total</i>	<i>1949</i>
New cases	14	13	18	15	16	18	22	27	26	15	13	37	234	173
Referred by Public Health Dept.	7	11	5	2	2	6	8	14	10	2	5	19	91	54
Referred by outside agencies	7	2	13	13	14	12	14	13	16	13	8	18	143	119
Cases Closed	8	10	4	17	14	12	24	9	25	23	25	23	194	180

At the end of the year 126 cases remained under supervision.

NATIONAL ASSISTANCE ACT

The National Assistance Act is delegated to the Welfare Committee, with the exception of Section 48 (1) (a) which is the direct concern of the Health Committee. Act on under Section 47 (removal to suitable premises of persons in need of care and attention) is, however, undertaken by the department in conjunction with the Welfare Department.

Dealing with the compulsory removal of persons in need of care and attention, there were 96 investigations carried out in 1950 (65 female and 31 male). In 48 cases no action was considered necessary. Satisfactory arrangements were made by the provision of a home help or district nurse in 19 cases. No aged person was removed to hospital compulsorily. Action was contemplated in one case but the death of the patient occurred before the necessary procedure could be adopted. The attention of the department was drawn to the insanitary living conditions of this patient (an old man), by the medical practitioner in attendance. On investigation it was found that the patient was paralysed, bedridden and extremely emaciated. His wife appeared mentally deranged, she could not speak intelligibly and although physically capable was making no effort to care for her husband. The house itself was extremely filthy, the tables, chairs and floor being covered with the contents of garbage bins. The wife was later removed to a mental hospital.

<i>Cases investigated</i>	96
Cases removed under Section 47	—
Admitted to Hospital (Voluntarily)	20
Other arrangements	19
No action	48
Died before admission to hospital	9

The department is concerned only in affording temporary protection for property of persons admitted to hospital, as contained in Section 48 (1) (a) of the National Assistance Act. Since 5th July, 1948, when this responsibility was assumed, 281 cases have been referred from various sources, mainly from the chief authorised officer dealing with Lunacy and Mental Treatment Acts, the police and hospital almoners.

Very careful investigation takes place before such protection is afforded, and in quite a number of instances relatives have been traced and have agreed to undertake the management of affairs. This is particularly so in the case of mental patients. Such relatives who undertake this duty are clearly informed of their responsibilities. In certain other cases when patients have been mentally capable of acting on their own behalf, they have occasionally preferred friends or relatives to safeguard their interests.

Cases so referred are extremely varied and range from the affluent to the very poor. If the property of mental patients is valued at

over £100 and the patient's stay in hospital is likely to be prolonged, the case is eventually referred through the Secretary-Accountant of the department to the Court of Protection for action by means of Receivership. This latter subject is dealt with by the Secretary-Accountant in his section of the report.

It is frequently found that the contents of houses are in a deplorable condition, and before either a search or inventory of the contents can be made it has been necessary for spraying to be carried out. On a number of occasions sums of money up to £800, besides valuable articles of jewellery, have been found and brought back to the office for safe custody.

As contributory pensions are now payable whilst the patient is in hospital at the maximum rate of 26/- for the first 8 weeks, 16/- for the next 12 months, and 5/- for the remainder of the time the patient is in hospital, unless it is likely to be a receivership case, pension books are sent to the various hospitals where the money is drawn on behalf of the patients, and comforts as may be necessary are granted out of the proceeds of the pension, and where necessary payment of insurance and rent is continued, the rent being paid until it is known whether or not the patient is likely to be discharged. If the possibility of discharge is remote or out of the question, the case is referred to the Court of Protection asking them to authorise the termination of the tenancy of the house and to give permission for us either to sell or store the furniture as may be necessary.

Pets have been a problem but, thanks to the co-operation of the R.S.P.C.A., this has been overcome.

Personal belongings of patients, usually single people living in lodgings, have been collected and stored in accommodation provided at the departmental stores at Cambridge Street. Liaison is effected with the various hospitals and they are requested to inform patients as to how this property may be obtained on their discharge.

This section of the department is closely linked with that of the Secretarial and Accountancy section, in particular in relation to a patient who dies intestate and whose relatives cannot be traced.

SECRETARIAL AND ACCOUNTANCY

The work of the secretarial and accountancy section, involving the lay administration of the whole of the Public Health Department, is closely linked with the various schemes and services referred to in other sections of this report. It is thought, however, that a review of the more outstanding items which have been dealt with during the year 1950 may be of some interest, and brief particulars are given below of such matters and of other items of general interest concerned with the non-medical and non-technical aspects of the department.

In retrospect it can be said that progress has been made in connection with a number of the schemes approved by the City Council for the implementation of the statutory duties of the Local Health Authority under the National Health Service Act, 1946. Due to the present economic situation, however, and the consequent unavoidable restrictions on capital projects, it has not been possible to proceed at a speed which, from the purely departmental angle, may have seemed desirable. Indeed it has been necessary for the time being to defer certain schemes which the Health Committee had hoped to put into operation during the year under review, but no doubt when times are more propitious it will prove possible to carry out these projects.

The principal new schemes which have been engaging the attention of the administrative and technical staff during the year so far as the preliminary work is concerned are the erection of the proposed Health Centres in the Stechford and Quinton areas, and Benacre Street, the adaptation of Harborough Hall for use as a convalescent home for mothers and their babies, the adaptation of " Skilts " as a home for children who have been in contact with cases of open tuberculosis, the erection of the new ambulance depot in Henrietta Street, and the extension of the animal houses and stores attached to the Bacteriological Laboratory. These schemes are still in their initial stages and none has yet reached completion, but it is anticipated that certain of them will be brought into operation during the coming year. Administrative difficulties encountered in connection with the preparation of plans, meeting the requirements of the Ministry of Health's technical officers, and obtaining the requisite approvals, have been considerable, particularly by reason of constantly rising prices and labour costs rendering original estimates inadequate and in need of continual revision. The future rate of progress with these schemes will depend principally upon whether or not the Minister of Health finds it necessary to impose new restrictions in view of the present international and economic situation.

Close co-operation with the town planning section of the Public Works Department has been achieved, and endeavour is being made in accordance with the policy laid down by the Health Committee to obtain a suitable site for the erection of a Health Centre in each " neighbourhood unit " of the City. This does not present undue difficulties in areas

which have yet to be developed, but the obtaining of suitable sites in developed areas presents special problems which are being dealt with in collaboration with the Town Planning Authority. In this connection a development plan has been prepared on behalf of the Health Committee, and has been submitted to the City Engineer and Surveyor, covering the next five years, and also a further period of another fifteen years. Particulars have also been submitted of long-term policy, showing those schemes which it is not expected will be put in hand during twenty years from the approval of the development plan.

In addition to giving a description of the various proposals, estimates of capital costs were prepared in respect of each scheme, but in view of the long period covered, and the uncertainty as to the trend of future building costs, the figures submitted must be regarded solely as provisional.

The object of the development plan is to enable the Town Planning Authority to draw up a comprehensive scheme for the City as a whole, including the provision of all necessary public services. It is essential, therefore, that adequate provision should be made in such plans for development of the health services as required by the National Health Service Act, 1946. The completed development plans will be submitted in due course by the Local Planning Authority to the Minister of Town and Country Planning for approval.

The reservation of sites under the Town and Country Planning Act, 1947—as distinct from the purchase or appropriation of sites—has been rendered necessary by an instruction received from the Ministry of Health that only in special circumstances where it can be shown that there is a particularly urgent need for the erection of a health centre, are sites to be purchased or appropriated. In all other cases the Local Authority is instructed to exercise its powers under the Act for the reservation of the requisite sites.

The information submitted in connection with the development plan referred to above will enable the Town Planning Authority to put this instruction into effect.

A further innovation during the year was contained in an instruction received from the Ministry of Health (Circular 55/50) requiring Local Health Authorities to submit programmes of capital building proposals estimated to cost more than £1,000. Briefly, it was required to submit a programme for the current year in respect of schemes which it was anticipated could be put in hand before 31st March, 1951, but which had not previously been submitted to the Minister. In addition, the Local Health Authority was required to give preliminary information for the guidance of the Minister in respect of schemes which it was proposed should be implemented in subsequent years. In future the annual programmes are to be submitted in November of each year in respect of the following financial year, and this has now been done in respect of the year 1951/52.

It will be appreciated that the preparation of these schedules for the Minister involves peculiar difficulties in that it is necessary to attempt to anticipate the future policy of the City Council in respect of schemes which may not, at the time of preparing the programme, have been given even preliminary consideration at Committee level.

The schemes submitted will receive the Minister's consideration, after which he will notify the Local Authority which schemes are reserved for fuller consideration, and which have been approved in principle, subject, where appropriate, to stated conditions. With regard to schemes falling within the second category, the Minister will then issue block loan sanctions covering the estimated cost of the schemes where the authority proposes to meet the cost out of loan. In such cases it is anticipated that the Minister will not normally require to be supplied with working drawings, etc., for detailed examination by his technical officers. The adoption of this new procedure should, in theory, result in a considerable saving of time and labour and should allow the Local Authority's technical officers to undertake greater personal responsibility inasmuch as their work will not be subject to detailed examination by the Minister's technical staff.

The new scheme, however, has not yet been in operation long enough to enable one to assess its practical advantages.

With regard to the general maintenance, repair and redecoration of the various buildings belonging to, or occupied by the Public Health Department, the Minister of Health has, during the year 1950, limited annual expenditure to 80% of the total expenditure on such work during the year 1949. It has been necessary, therefore, to restrict considerably the amount of work undertaken by the Manager of Works' section of the department, and to undertake only essential work of repair and redecoration in order to maintain the buildings in reasonable condition. On the other hand, inspectors from the Ministry of Health have paid formal visits to the various day nurseries operated by the Health Committee, and have suggested numerous and costly alterations and improvements which they insist should receive attention at an early date in order that the institutions concerned may be recognised, or continue to be recognised as suitable for the training of students.

A matter which has for many years caused considerable difficulty in the administration of the department has been the inadequate head office accommodation resulting in overcrowding of staff and—a matter of even greater importance—the lack of suitable rooms in which to interview members of the public in privacy. In order to relieve the congestion at head office, arrangements have now been made for very considerable accommodation in Newhall Street to be rented by the Health Committee on a long lease, and it is proposed to transfer thereto the whole of the sanitary inspectors' section of the department. It is hoped that the new accommodation will be available for use, after the necessary structural

alterations have been made, by the Spring of 1951. When this transfer has been effected it will be possible to allocate more office space to the head office staff, particularly to the medical and welfare services where it is most desirable that the officers concerned should be able to interview members of the public, often on highly confidential matters, with absolute privacy. It is hoped also by a re-arrangement of the various sections at head office, to avoid the necessity for expectant mothers to visit offices other than on the ground floor level, and so to remove what has been in the past a cause of complaint by members of the public from time to time.

With general reference to staff accommodation, attempts have been made during the year to improve, within the limited means possible, the conditions under which the staff are required to work, but so long as the total floor space allocated to the department is so severely restricted, it is impossible to provide ideal working conditions for a considerable proportion of the staff. Possibly the most noteworthy achievement during the year towards improving staff conditions has been the erection at the Bacchus Road Depot, of a new canteen for the use of the workers employed in the departmental laundry, the disinfecting station, the nursery kitchen, and for the chauffeurs attached to the staff.

With regard to the administrative and clerical staffs, there has, during the year under review, been a drive towards the ultimate goal of having a greater proportion of professionally qualified men and women working at head office. As a result of the institution of the scheme of establishment for the department, professional qualifications will be very necessary in future for the ambitious Local Government Officer, and, in consequence, there has been a marked increase in the number of staff who have taken up part-time studies with a view ultimately to passing the examinations of the various professional bodies.

Recruitment difficulties, particularly among the nursing staff, have been due, to a great extent, to the delay by the Whitley Council in publishing their awards to employees of Local Authorities. Increases in salaries were granted towards the end of the year in respect of the nursing staffs in certain grades and this has, to a slight extent, eased the position. Further awards, however, are still awaited—for example in respect of day nurseries and certain classes of senior local authority nursing staffs.

It is interesting to note also that particular difficulty is being experienced in obtaining sufficient junior staff for the various sections of the department. This experience is common to all Corporation Departments and the Board of Selection has, it is understood, a considerable list of vacancies in respect of most departments of the Corporation.

The total number of persons employed in the Department at 31st December, 1950, was 2,273. It is anticipated that this number will shortly be increased by the recruitment of additional sanitary inspectors and housing inspectors when the new office accommodation becomes available early in 1951.

Negotiations had been in progress for some time past with the Public Health Laboratory Service regarding the possible transfer of the City Bacteriological Laboratory and its staff to that body instead of being operated under the direct control of the Local Authority. The City Council in July, 1950, approved the proposal of the Health Committee that this transfer should be effected as from 1st October, 1950. The transfer involved a considerable amount of detail work both as regards valuation of the various fixtures and fittings which have been purchased by the Public Health Laboratory Service, and the transfer of superannuation rights of the staff to the new controlling body.

The whole of these matters have now been satisfactorily concluded.

An important branch of the work of head office staff to which reference should be made is that concerned with the compilation, day-by-day, of the vital statistics of the City. Detailed reference thereto will be found in the reports of the various sectional heads, and will indicate the varied nature of the records and the many different types of analyses required to be prepared in this particular branch of the Department.

Under the provisions of the National Assistance Act, 1948, Section 48, the Local Authority became responsible for the safe custody and protection of the movable property of persons admitted to hospitals or other similar institutions where it appears to the Local Authority that there is danger of loss of, or damage to, such property by reason of the patient's temporary or permanent inability to deal with it himself. This duty has been delegated by the City Council to the Health Committee, and it has been necessary, therefore, to make arrangements for officers of the Department to undertake this work. These new duties involve heavy responsibility and it may be mentioned that 115 cases were dealt with during 1950.

In addition to the actual custody of movable property, it is frequently necessary to apply to the Court of Protection for the granting of a receivership in order to give the powers necessary to manage the patient's affairs. The appointment of a Receiver must, in accordance with the law, be a personal appointment, and the Health Committee have, up to the present time, authorised the application of the Secretary-Accountant to the Court of Protection for appointment as Receiver in 62 cases. Of this number 55 receiverships are still in current operation.

Statements of account have to be rendered annually to the Court of Protection in respect of every estate involved, and details have to be submitted to the Court accounting for all actions of the Receiver. Preparation of these reports involves a considerable amount of highly technical accountancy work and it will be appreciated that the officers of the Court of Protection exercise the keenest vigilance over the method of dealing with the affairs of patients who are unfortunately unable to attend to such matters personally.

Further particulars regarding this service are given under the heading "National Assistance Act, 1948."

Turning now briefly to the financial position, the net expenditure of the Health Committee during the financial year ended 31st March, 1950, was £590,055 arrived at as follows:—

	<i>Gross expenditure £</i>	<i>Income, incl. Government Grant £</i>	<i>Net expenditure £</i>
Services administered by the Health Authority under the National Health Service Act, 1946	965,545	544,311	421,234
Other services for which the Local Health Authority is responsible	179,860	11,039	168,821
	<u>£1,145,405</u>	<u>555,350</u>	<u>590,055</u>

The net cost of the health services to the General Rate Fund, therefore is equivalent to $1/8\frac{1}{2}$ in the pound, or 10/8 per annum per head of population.

Under the provisions of the National Health Service Act, 1946, the accounts of the Local Health Authority are subject to District Audit, and this has now been completed for the period ending 31st March, 1949.

FOOD AND DRUGS

Eating Houses and Premises where Food is Prepared or Stored for Sale

At the end of the year there were 1,105 eating houses, registered under Section 54 (1) of the Birmingham Corporation Act, 1935. A further 49 had been inspected with a view to registration, but as work was still outstanding, had not been formally registered at 31st December, 1950.

The registered premises include unlicensed restaurants, cafes and snack bars, but exclude civic restaurants, school meals centres, works and office canteens, and licensed houses which are, however, subject to inspection under Section 13, Food and Drugs Act, 1938, and other premises such as private clubs, etc.

Inspection of these varying types of premises, which had been intensified during the previous year, continued to have a high priority among the duties of the Sanitary Inspectors, and improvements which have become apparent in the conduct of such premises have been to a considerable extent due to their efforts. The Sanitary Inspector to-day takes his place in the general scheme of education of the food handler by drawing attention to faults at the time of his inspection, and by explaining how such faults should be corrected, and why.

The Mobile Canteen has continued to present problems as in recent years. This type of catering is clearly on the increase, and a variety of difficulties are met with ; apart from the suitability of the vehicle there are the conditions under which food is stored, and perhaps prepared, and the garaging and cleansing of the vehicle. Such vehicles are frequently based in the area of one local authority and operate in that of another, and, while there has been a very willing liaison with the officers of the neighbouring authorities concerned, it is clear that policy in respect of the mobile canteen varies widely even where the model bye-laws as to the Handling, etc., of Food have been adopted. The general specification in the city for such vehicles has included the following :—

- (1) Metal lining throughout.
- (2) Driving cab shut off from canteen.
- (3) Impervious floor surface, readily cleansed.
- (4) Sink with short waste delivering into wide mouthed waste-water container, fitted with discharge pipe for release over appropriate road gully.
- (5) Supply of hot and cold water delivered over sink ; (the calor-gas instantaneous water heater has proved efficient).
- (6) Water storage of 20-30 gallons capacity in roof.
- (7) Food storage for prepared food, appropriately ventilated.
- (8) Sandwiches, etc., on display kept under glass or plastic.

- (9) Adequate supply of soap and clean towels.
- (10) Clean overalls.
- (11) Roof ventilation and adequate artificial lighting.
- (12) Serving counters of stainless steel or other suitable impervious material, readily cleansed.

At the time of completion of this report, it is noted with satisfaction that the report of the Catering Trade Working Party includes remarkably similar recommendations.

Close co-operation has been continued with the Food Office in connection with the suitability of premises for the issue of catering licences or extension of existing licences, and with the Public Works Department so as to ensure the suitability of any plans submitted, and their conformity with town planning and hygienic requirements.

The Town and Country Planning (Use Classes) Order, 1950, by which a proposal to supply cooked meals does not constitute a change of use when applied to existing shop premises, has materially simplified administration by reduction of the correspondence required.

The following tables give details of the number and type of new applications for catering licences dealt with during the year.

Referred by Public Works (Town Planning) Department	.....	.....	58
Referred by occupier	.....	.....	423
Referred by Food Office	.....	.....	18
Arising out of district inspection	.....	.....	29
			<hr/>
			528
			<hr/>

1. Public Houses	(a) full catering	22	—
	(b) snacks only	19	—
		<hr/>	41
2. Cafes	(a) full catering	99	—
	(b) snacks only	64	—
		<hr/>	163*
3. Fish friers providing meals on premises			29*
4. Factory canteens			43
5. Mobile canteens, with premises at which food is stored and prepared			22
6. School canteens			5
7. Food preparation premises providing meals for consumption off the premises			12
8. Clubs, full time (unlicensed)	(a) full catering	1	—
	(b) snacks only	—	1
9. Clubs, part-time (unlicensed)	(a) full catering	7	
	(b) snacks only	125	
		<hr/>	132
10. Residential Establishments	(a) private hotels	4	
	(b) boarding houses	7	
		<hr/>	11

11. Premises used for manufacture of cooked meats, and other foods	11**
12. Premises proposed but found unsuitable (Public Works (Town Planning) Dept., or Public Health Department), or licence refused by Food Office	39
13. Proposal subsequently abandoned	19
TOTAL	528

* Denotes premises subject to registration under Section 54 (1), Birmingham Corporation Act, 1935.

** Denotes premises subject to registration by Veterinary and Food Inspection Department under Section 14, Food and Drugs Act, 1938, and to joint inspection by that Department and by Public Health Department.

While the total number is reduced as compared with 1949, the consideration of applications in respect of part-time unlicensed clubs has again involved an appreciable amount of time in inspection and clerical work. It is perhaps inevitable that difficulties should arise in bringing all types of club-meeting premises up to a minimal standard, including :

- (1) A reasonable state of decoration and cleanliness of room.
- (2) A clean and suitable preparation table.
- (3) A suitable sink in good repair with supply of hot water over the sink.
- (4) A food cupboard ventilated to the external air in those cases where food is stored.
- (5) Removal from room of all articles not connected with food preparation.

Where such conditions have been found or are provided, the Food Office have received a notice of recommendation from this Department that a catering licence should be issued.

The total number of visits paid during the year to eating-houses, and to premises where food is prepared or stored for sale, was 6,710.

Ice-Cream

During the year 8 manufacturers' licences were cancelled, these becoming retailers only, giving a total of 201 manufacturing premises at the end of the year.

There has again been a considerable increase in the number of premises registered for the sale of ice-cream, the number on the register at the end of the year being 2,040, an increase of 427 over the figure for the previous year. The majority of applicants for registration were desirous only of selling a wrapped ice-cream, and traders generally are gradually replacing loose ice-cream with the wrapped variety. This change in policy on the part of the trader has everything to commend it, provided that the ice-cream is mechanically, and not hand-wrapped.

All vehicles used in the trade have maintained the high standard asked for by the Department prior to the start of the open-air season in the previous year.

It has been noticed during the year that there has been a considerable increase in the sale within the City, of ice-cream manufactured in the areas of other local authorities. A satisfactory report upon conditions of manufacture has invariably been obtained from the Medical Officer of Health concerned, before registration of the firm in question for the sale of ice-cream in Birmingham.

Applications received for the sale of ice-cream from two butchery establishments were refused by the Health Committee. In one case the applicant elected to appear before the Committee as provided for under Section 55 of the Birmingham Corporation Act, 1935, but he failed to show adequate cause to justify a reversal of the Committee's earlier decision.

In 24 other instances, applications were withdrawn before formal submission, the applicants having been advised that the premises in question were unsuitable, as not complying with Section 13, Food and Drugs Act, 1938, or with paragraph 5 of the Ice-Cream (Heat Treatment, etc.) Regulations, 1947.

Visits of inspection to ice-cream premises during the year were paid as follows :—

Manufacturers	1,320
Dealers	4,374

Seven hundred and eighty-one samples were taken during the year for submission to the methylene blue test, while one hundred and seventy were taken for analysis of fat content. This great increase in sampling was made possible by the appointment of two full time samplers of milk, ice-cream and synthetic cream, this arrangement leaving the inspectors wholly available for inspection and supervision of plant and premises.

The details of these samples were as follows :—

Methylene Blue Test

<i>Pro- visional Grade</i>	<i>Samples of Ice-Cream manufac- tured on premises in the City</i>	<i>Samples of Ice-Cream manufac- tured on premises outside the City</i>	<i>Total samples 1950</i>	<i>1949 results</i>
1	298 (59·13%)	158 (57·04%)	456 (58·39%)	59·85%
2	123 (24·40%)	84 (30·33%)	207 (26·50%)	19·18%
3	44 (8·73%)	22 (7·94%)	66 (8·45%)	11·25%
4	39 (7·74%)	13 (4·69%)	52 (6·66%)	9·72%

The relatively higher proportion of failures (Grades 3 and 4) of samples of ice-cream manufactured within the City can be accounted for by the repeat sampling and checking of manufacturing plant which follows an initial adverse sample and is continued until satisfactory results have been obtained.

Analysis of Fat Content

Percentage of fat	No. of Samples from inside City	No. of Samples from outside City	Total Samples	1949 Results
Under 1	1 (.75%)	—	1 (.59%)	1.03%
1—2	2 (1.50%)	—	2 (1.17%)	4.62%
2—4	18 (13.43%)	1 (2.78%)	19 (11.18%)	29.74%
4—8	93 (69.40%)	17 (47.22%)	110 (64.71%)	56.41%
8—10	13 (9.70%)	12 (33.33%)	25 (14.70%)	6.15%
Over 10	7 (5.22%)	6 (16.67%)	13 (7.65%)	2.05%

Milk and Dairies

The following table summarises the premises subject to the supervision of the Senior Milk and Dairies Inspector, who has 4 full time inspectors working under his direction.

Pasteurising Plant	H.T.S.T.	8
	Holder	5
Sterilizing Plant		13
Heat Treatment Plant		1
Wholesale and Retail Distributors		108
Dealers (Milk Shops)		2,730
Tuberculin Tested licences issued to producers of pasteurised and sterilised milk for the production of Tuberculin Tested (Pasteurised) and Tuberculin Tested (Sterilised) Milk		
		10

Two firms discontinued pasteurisation of milk during the year, and one dairyman applied for, and was granted, a pasteuriser's licence (holder process).

One application was received during the year for a pasteuriser's licence in respect of an in-bottle plant for which a licence had been refused during the previous year. Numerous safeguards had been incorporated in this plant and the grant of a licence under paragraph 1 (c) of the 2nd schedule of the Milk (Special Designation) (Pasteurised and Sterilised Milk) Regulations, 1949, was approved by the Health Committee, subject to the concurrence of the Ministry of Food. Agreement with the Ministry on an appropriate time-temperature specification for this plant had not, however, been reached by the end of the year.

For some years the Department has been pressing for improved conditions in one of the dairy premises where pasteurisation is carried out, the premises being overcrowded and, generally, below the standard of such premises in the City. Plans were submitted during the year, and approved, for the reconstruction of other premises owned by the same firm. Applications for licences for the necessary building material to carry out this project have not, however, received the support of the government departments required on the grounds that the Ministry of Food financial allocation for the year had already been expended.

The following complaints were received during the year :—

Dirty bottles	}	13
Foreign matter in bottles		
Vinegar fly infestation		
		1

It is appreciated that complaints are, for the most part, referred by the customer direct to the retailer, or to the dairy where the milk has been processed, but the total of 14 complaints compares favourably with 33 in the previous year.

No instance of milk-borne infection came to the notice of the department during the year.

The following table shows the result of examination of samples of various milks taken for methylene blue and phosphatase or turbidity tests, 1,839 in all :—

<i>Classification</i>	<i>Total No. of Samples</i>	<i>Failed Methylene Blue Test</i>	<i>Failed Turbidity Test</i>	<i>Failed Phosphatase Test</i>	<i>Void</i>
Raw Milk	226	31 (13.72%)	Not applicable	Not applicable	Not applicable
Designated Raw Milk	99	7 (7.07%)	Ditto	Ditto	Ditto
Pasteurised Milk (Pro- cessed in- side City)	770	6 (0.78%)	Ditto	18 (2.34%)	216
Pasteurised Milk (Pro- cessed out- side City)	232	4 (1.72%)	Ditto	20 (8.62%)	
Sterilised Milk	344	Not applicable	Nil	Not applicable	Not applicable
Heat Treated	168	Nil	Not applicable	Nil	4

It will be noted that 220 samples are classified as void. These are samples taken during the summer months but held to be void in accordance with the provisions of Section 1 of Part 3 of the Third Schedule of the Milk (Special Designations) (Pasteurised and Sterilised Milk) Regulations, 1949. It is, indeed, open to question whether it is economic to take these samples during the summer months.

Samples were also taken of churn and bottle washings as a check on the efficiency of the equipment and apparatus in use in pasteurising establishments. The results were as follows :—

Churn Washings

Churns washed with 1 litre of sterile water.

<i>Bacterial Count per 1 ml. of churn washings</i>	<i>No. of samples</i>	<i>Coliform Bacilli present per 1.0 cc.</i>	<i>No. of samples</i>
Under 1,000	11	Nil	11

Bottle Washings

<i>Bacterial Count per bottle</i>	<i>No. of samples</i>	<i>Coliform Bacilli present per 1.0 cc.</i>	<i>No. of samples</i>
Under 1,000	8	Nil	9
1,001—10,000	4	Under 10	2
10,001—100,000	1	10—100	1
100,001—500,000	—	101—1,000	2
Over 500,000	1		

The following details of inspections carried out summarise the work of inspection of plant and premises carried out by Inspectors during the year. The milk shops are supervised by the Sanitary Inspectors, all the remaining premises being under the control of the Milk and Dairies Inspectors.

Farms (Producers)	3
Pasteurising Plants	468
Sterilising and Heat Treatment Plants	435
Wholesale Purveyors	161
Retail Purveyors	419
Milk Shops	6,375
Milk Bars	128
Interviews (Milk and Ice-Cream)	206
Other visits	462
Unsuccessful visits	877

Synthetic Cream

Routine sampling of synthetic cream received at 21 confectionery bakeries from the suppliers to the area showed the following results:—

<i>Bacterial Count per 1 ml. of Cream after incubation for 48 hours at 37°C.</i>	<i>No. of samples</i>	<i>Coliform Bacilli present per 1.0 cc.</i>	<i>No. of samples</i>
Under 1,000	49	Nil	79
1,001—10,000	12	Under 10	—
10,001—100,000	10	10—100	—
100,001—500,000	2	101—1,000	4
Over 500,000	10		—
	83		83

Unsatisfactory bacteriological reports have been followed up by careful investigation, and the length of the period in transit from supplier to confectioner has appeared to be a contributory factor in a number of instances. The importance of careful sterilisation is, however, all the greater where delivery is, or may be, delayed.

As a check upon the handling of this ingredient of confectionery, a number of samples were also taken from the mixing-bowl after making up, with the following results :—

<i>Bacterial Count per 1 ml. of cream after incubation for 48 hours at 37°C.</i>	<i>No. of samples</i>	<i>Coliform Bacilli present per 1.0 cc.</i>	<i>No. of samples</i>
Under 1,000	37	Nil	50
1,001—10,000	8	Under 10	5
10,001—100,000	8	10—100	1
100,001—500,000	4	101—1,000	4
Over 500,000	3		—
	—		—
	60		60
	==		==

During November and December 7 dairymen within the City commenced the bottling and sale of synthetic cream purchased in bulk from outside the City. This is retailed by the firm's roundsmen and supplied to shops for retail sale over the counter. The amount dealt with is considerable, and the trade is extending. Samples were taken from the premises involved, and have given the following results :—

<i>Bacterial Count per 1 ml. of cream after incubation for 48 hours at 37°C.</i>	<i>No. of samples</i>	<i>Coliform Bacilli present per 1.0 cc.</i>	<i>No. of samples</i>
Under 1,000	9	Nil	15
1,001—10,000	5	Under 10	1
10,001—100,000	1	10—100	—
100,001—500,000	—	101—1,000	—
Over 500,000	1		—
	—		—
	16		16
	==		==

Shell Fish

During the year, two samples of oysters and 48 samples of mussels were taken by the Veterinary and Food Inspection Department, for bacteriological examination. These gave the following results :—

<i>B.Coli Type I per 1.0 ml. of fish</i>	<i>No. of samples</i>
Nil	32
1—5	16
6—10	2

No infection was traced, during the year, to the consumption of contaminated shell-fish.

In the case of Bangor Mussels, which have not been passed through the purification tanks at Conway, and which have in the past been shown to be heavily contaminated, a suitable location for relaying has been discovered, and, subject to adequate relaying, sealing and labelling, these mussels are again appearing for sale in the City Market. The co-operation of the Fisheries Experimental Station at Conway has been largely instrumental in bringing about this solution to a long-standing problem, for which, formerly, there had seemed to be no possible solution.

Unpurified mussels from layings off the Norfolk coast in The Wash area have, in view of previous results, been very keenly supervised and it is satisfactory to note that supplies reaching the City Market were somewhat cleaner than during the previous year.

Bakehouses

There are 177 bakehouses in the City, a number of which may more aptly be described as confectionery-bakehouses.

687 inspections were made during the year, including 255 visits to 21 confectionery-bakehouses where synthetic cream is extensively used in manufacture. A further 57 visits were paid to these premises for the purpose of sampling synthetic cream.

Bakehouse premises are not subject to registration with the local authority, but are inspected, and required to comply with the provisions of Section 13 of the Food and Drugs Act, 1938. In no case was it found necessary to initiate legal action with a view to closure: warning letters were sufficient in all cases to attain the remedy of defects noted. The principal defects included need for redecoration, and the cleansing of floors, lack of adequate hot water supply and the need for improved cooling and storage conditions.

INSPECTION OF COWS AND COWSHEDS

Extracts from Report by MR. C. G. ALLEN, M.R.C.V.S., Chief Veterinary Officer.

City Dairies

The Milk and Dairies Regulations 1949 require the registration of cow-keepers and enforcement of general requirements as to structure and cleanliness of cowsheds and precautions to be taken in connection with the milking of cows.

At the end of 1950 there were 30 dairy farms housing 630 milch cows in 77 registered sheds, viz. :—

Attested herds	2
Tuberculin-tested herds	1
Accredited herds	12
Non-designated herds	15

A monthly inspection has been made of all city cowsheds and dairy cows, and during the year 974 visits were made by veterinary inspectors.

Milk and Dairies Regulations, 1949 (Part IV)

Veterinary inspections of City dairy herds were made on behalf of the Ministry of Agriculture and Fisheries, and certificates issued as follows:

<i>Accredited herds</i>	<i>Cows examined</i>
30	729
<i>Non-designated herds</i>	
22	270

In connection with the Ministry's voluntary scheme for vaccination of heifer calves against contagious abortion, 66 calves have been vaccinated.

Dairy Herds

Despite shortage of labour and other difficulties, the health and cleanliness of the cows in the City dairies remain good. The cows are regularly examined with a view to preventing danger to health from the sale of infected, contaminated or dirty milk, and in particular, for prohibiting the supply or sale of milk suspected of being infected with tuberculosis.

Mastitis

During the year 23 cows were found to be affected with acute catarrhal mastitis, and the milk produced from these cows was prohibited from sale.

Tuberculosis

In addition to the clinical examination of the dairy cows, bulk samples of milk were taken from each City dairy herd during the year, and individual samples from suspected cows.

	<i>Taken</i>	<i>Infected</i>
Mixed samples from dairy herds	54	2
Individual samples	1	1

As a result of clinical examination, two cows affected with tuberculosis were removed from the City dairy herds during the year and dealt with under the Tuberculosis Order.

In addition, at the request of the Ministry of Agriculture and Fisheries, post mortem examinations were made on twelve cows dealt with under the Tuberculosis Order and sent to the City Meat Market from farms outside the City.

Inspection of Cowsheds

Regular inspection has been maintained of all registered cowsheds, attention being paid to the provisions of the Milk and Dairies Regulations for securing adequate lighting, ventilation and a clean water supply, also the cleansing of cowsheds and removal of dung and offensive matter.

In spite of labour shortage all cowsheds have been limewashed or sprayed with lime at least twice during the year.

Examination of Milk coming into the City from Outside Sources for the presence of Tubercle Bacilli

The system is to sample each source of supply and samples are obtained at depots from raw milk before heat treatment.

Milk supplies are handled mainly by large milk depots.

The following return shows the number of samples of milk taken during 1950. Each sample represents the mixed milk of the cows of a single herd.

<i>Source</i>	<i>Samples taken at Depots, etc.</i>	<i>Samples infected</i>	<i>No. of T.B. Cows traced</i>
Derbyshire	5	2	5
Gloucestershire	5	—	—
Herefordshire	15	—	—
Leicestershire	112	5	2
Shropshire	171	7	18
Staffordshire	865	40	21
Warwickshire	688	29	34
Worcestershire	350	15	8
	<hr/> 2,211	<hr/> 98	<hr/> 88
City Dairies	54	1	2
	<hr/> 2,265	<hr/> 99	<hr/> 90
Pasteurised (To test plant)	15	—	—
	<hr/> 2,280	<hr/> 99	<hr/> 90
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>

With regard to the infected samples, in addition to notifying the County Medical Officers concerned, and in order to avoid any delay, copies of notifications are sent to the County Divisional Inspectors of the Ministry of Agriculture (Animal Health Division) who arrange veterinary examinations of the herds concerned, in order to find and eliminate the infected cows.

As a direct result of sampling milk for the presence of tubercle bacilli, 90 cows (88 outside dairies and 2 City dairies), giving tuberculous milk were removed during 1950 from dairy herds supplying milk to Birmingham.

At 21 farms the investigations had not been completed at the end of the year.

Comparative Return

The following table shows the number of samples of milk sent in from outside sources, taken during the past ten years, and the percentages infected :—

<i>Year</i>	<i>Samples Taken</i>	<i>Samples Infected</i>	<i>Percentage Infected</i>
1941	2,377	189	8.0
1942	2,408	182	7.5
1943	2,456	146	5.9
1944	2,434	138	5.7
1945	2,396	122	5.1
1946	2,232	128	5.7
1947	1,659	84	5.1
1948	2,306	69	3.0
1949	2,326	133	5.7
1950	2,211	98	4.4
AVERAGE FOR PERIOD			5.7

It will be seen from these figures that since 1941 the position has substantially improved, the average percentage of infected milks for the past ten years being 5.7% and down to 3% for 1948. In a large measure this improvement can be attributed to dairy farmers, owing to food rationing difficulties, disposing of old and unprofitable cows for slaughter.

This is also revealed in the cattle slaughtered at the public abattoir. The percentage of the total number of cattle killed during 1950 found to be affected with tuberculosis was 27.08%, whereas the corresponding percentage for 1939 was 24.0%. This increase is due to a greater percentage of low grade cattle received for slaughter than formerly.

Tuberculin Testing of Herds

The following return gives the number of animals tested during the year :—

	<i>Tested</i>	<i>Passed</i>	<i>Failed</i>	<i>Commencement of Testing</i>
1	98	98	—	3rd October, 1908
2	145	145	—	3rd October, 1908
3	77	77	—	1st January, 1934

Inspection of Meat and Other Foods

Under the Livestock (Restriction on Slaughtering) Order, 1940, the slaughtering of cattle, sheep and a certain number of pigs, carried out in Birmingham is concentrated at the Public Abattoir. In addition to that centre there are fifteen private slaughterhouses attached to bacon factories in the City for the slaughter of pigs. Prior to the Ministry of Food's control of slaughtering there were 83 private slaughterhouses in use.

For the purposes of the inspection of meat in the Public Abattoir and in the bacon factories, there are employed five Veterinary Meat Inspectors and three Food Inspectors. The food inspection in the shops and food stores in the City is carried out by eight District Inspectors. There is also one Inspector employed in the Wholesale Fruit, Vegetable and Fish Markets.

Under the present procedure, whereby the Ministry of Food take control of slaughtering, the local authority continue meat inspection and inspection of slaughtering, as carried out prior to the change.

CARCASSES INSPECTED AND CONDEMNED

	CITY MEAT MARKET				BACON FACORIES
	Cattle	Calves	Sheep and Lambs	Pigs	
Number killed	68,265	74,758	181,968	25,976	161,361
Number inspected	68,265	74,758	181,968	25,976	40%
<i>All diseases except Tuberculosis :</i>					
Whole carcasses condemned	139	581	119	126	116
Carcasses of which some part or organ was condemned	929	179	5,252	688	1,317
Percentage of the number killed affected with disease other than tuberculosis	1.56%	1.02%	2.95%	3.13%	0.89%
<i>Tuberculosis only :</i>					
Whole carcasses condemned	916	44	—	28	136
Carcasses of which some part or organ was condemned	17,571	3	—	1,769	7,820
Percentage of number killed affected with tuberculosis	27.08%	0.06%	—	6.92%	4.93%
TOTAL DISEASED 1950	28.64%	1.08%	2.95%	10.05%	5.82%
TOTAL DISEASED 1949	32.64%	1.36%	4.28%	11.4%	5.64%
TOTAL DISEASED 1948	30.8%	1.4%	8.5%	11.2%	5.2%

Inspection of Meat, Fish and Other Foods at Institutions, Birmingham Civic Restaurants, etc.

The premises visited include :—

Institutions and Residential Homes	38
School Meal Centres	129
Birmingham Civic Restaurants	41
Factory Canteens	24
	<hr/> 232 <hr/>

2,787 visits of inspection were made during the year to the above premises. In cases where food supplies and storage conditions were found to be unsatisfactory at school meal centres, reports were sent to the Education Department, and reports relating to food inspected at Birmingham Restaurants were sent to the Restaurants Department. These referred to

School Meal Centres	105 cases
Birmingham Civic Restaurants	3 ..
	<hr/> 108 .. <hr/>

Registered Premises used for the Manufacture of Cooked and Potted Meats, under the Food and Drugs Act, Sec. 14 (1) (b)

Registration of premises which complied with the requirements of the Veterinary and Public Health Departments was carried out in 21 cases during 1950.

At the end of the year there were 317 food preparation premises on the register as follows :—

Sausages, cooked meat and pork pie manufacturers	315
Jam manufacturers	2
	<hr/> 317 <hr/>

Food and Drugs Act, Section 13

Provisions as to rooms where food intended for sale is prepared or stored.

To enable occupiers of shops to obtain paint, timber and other necessary material, for repairs and alterations, certificates have been issued, stating the requirements in each case.

The following retail food shops, etc., were visited :—

Beef and pork butchers	1,020
Grocers	1,562
Greengrocers	1,311
Hucksters	4,245
Fish friers	462
Fishmongers	655
Horseflesh	4
	<hr/>
TOTAL	9,259 <hr/>

Visits of inspection were paid by inspectors as follows :—

Slaughterhouses (Bacon Factories)	2,672
Food preparation premises	7,618
Fish friers	2,244
Beef and pork butchers	22,707
Grocers	6,211
Greengrocers and fishmongers	16,756
Hucksters	859
Ham and bacon curers	2,660
Street hawkers	27,508
Horseflesh	52
Cold stores	22,547
Other requests	3,518
Birmingham civic restaurants, school meal centres, etc.	2,584
Factory canteens	203
	<hr/>
	118,139

SANITARY CONDITIONS

THE CITY'S WATER SUPPLY

I am indebted to Mr. A. E. Fordham, the General Manager and Secretary of the Water Department for the following particulars.

1. At the head works in Wales work has proceeded on the construction of the new Claerwen Dam which, when completed, will provide storage for an additional 10,860 million gallons.

2. On the Aqueduct work has been in progress on the first sections of a Fourth Main composed of 60 inch diameter concrete-lined steel pipes.

The lengths involved are $4\frac{1}{2}$ miles on the Severn Siphon between the Inlet and Sturt, and some $1\frac{1}{4}$ miles on the Downton Siphon between the Inlet and Woodhouse.

3. At the Frankley Works a block of eight rapid gravity filters, with a combined maximum capacity of 16 million gallons a day are under construction.

4. During the year the work of installing new electrical pumping plant at the Frankley Works has been completed.

5. In the Area of Supply some $1\frac{1}{2}$ miles of 36 inch diameter concrete lined steel main are being laid in the Northfield Zone of Supply in Rednal Road, King's Norton.

6. In the Hagley Road Zone some $\frac{1}{2}$ mile of 18 inch diameter cast iron main has been laid between Wellington Street and Downing Street.

7. In order to obviate any possibility of contamination of the raw water due to the large number of men engaged upon the construction of the Claerwen Dam, the supply has been treated with a small dose of chlorine before entering the Aqueduct at the Elan Valley.

8. The working of the slow sand filters at the Whitacre Station was seriously affected by heavy growths of algæ in Shustoke Reservoir in March and again in September and October.

9. All water distributed has been treated with chlorine, generally at a rate of about 0.3 parts per million.

10. Consequent upon the relatively mild weather conditions during the winter months, little trouble was caused by the presence of seagulls at the Bartley Reservoir. They were, however, undoubtedly responsible for a high degree of contamination in reservoir water samples towards the end of January, 1950. This was satisfactorily dealt with by the normal filtration processes, together with a slight increase in the rate of chlorination.

11. The water distributed in the City Area has been almost entirely the soft moorland water of the Elan Supply, the local wells at Longbridge and Short Heath being called upon for a small quantity only.

12. At all times during the year water supplies have been satisfactory from the point of view of both quality and quantity, although, due to the constantly increasing demand, the pressure in the service mains in some limited areas is less than could be desired at times of peak draught. A programme of trunk main extensions to remedy these matters is in hand.

Routine Sampling of Corporation Water

Elan Valley Supply. 220 bacteriological and 40 chemical samples of this water were taken during the course of its collection in Wales, its passage to Birmingham and its treatment at Frankley. There were 184 bacteriological samples from the covered storage reservoirs for purified water and 128 bacteriological and 57 chemical samples from taps representative of the 3 levels of supply.

River Bourne Supply. 253 bacteriological and 36 chemical samples were taken of this water before, during and after purification.

River Blythe. 52 bacteriological and 12 chemical samples were taken, but the water was not used for supply during the year.

Longbridge Well. There were 32 bacteriological and 4 chemical samples.

Short Heath Well. There were 27 bacteriological and 4 chemical samples. The average chemical composition of the treated water from each of these 4 sources was :—

PARTS PER 1,000,000

	Ph. range	Total solids	Free Ammono- nia	Albumi- noid or Organic Ammono- nia	Nitro- gen in Nitrates	Oxygen con- sumed in 4 hours at 27°C	Chlor- ine in Chlor- ides	Hardness (as CaCO ₃)	Total Alka- linity (as CaCO ₃)	Silica (SiO ₂)	Plumbo Sol- vency
ey	6.9 to 8.2	43.6	.000	.037	0.16	1.49	9.7	23.4	9.4	1.8	1.3
re	7.4 to 8.0	360.	.009	.070	1.83	0.78	35.9	182.	—	4.4	—
lge ll	6.4 to 6.6	269.	.000	.004	3.35	0.09	18.5	Perm. Temp. 85.6 64.6	70.5	—	—
ath ll	7.4 to 7.5	419.	.000	.007	10.70	0.09	30.0	143. 65.	81.3	—	—

Bacteriologically the well water is virtually sterile after it is chlorinated. The water passing into supply from Frankley averages 4 organisms per 1 m.l. growing on agar at 38°C. in 24 hours, and no B.Coli was found on any occasion in 100 m.l.

The purified supply from Whitacre averages 35 organisms per 1 m.l. and no B.Coli on any occasion in 100 m.l.

The bacterial content of the raw Elan water is of the order of 11 organisms per 1 m.l. and 2 B.Coli per 100 m.l., whereas the River Bourne contains organisms of the order of 10,000 per 1 m.l. and up to 24,000 B.Coli per 100 m.l.

The water supplies to Corporation property and institutions outside the City were sampled at intervals, a total of 50 bacteriological and 37 chemical samples being obtained.

Private Wells

It has been estimated that about 50,000,000 gallons of water per day are being pumped from the New Red sandstone rocks within a 30 mile radius of Birmingham, and that the margin for further substantial supplies being obtained in this area is very small indeed. The water level in the Birmingham district is, in fact, continually sinking through over-pumping.

Within the City boundaries, 114 hospitals, hotels, breweries and industrial premises utilise water from private wells, 71 of them for both drinking and industrial purposes and 43 for industrial use only.

About 70 houses and farms still rely upon shallow wells for water. This number diminishes year by year as public supply mains are extended to serve newly developing estates. The wells are examined and sampled periodically.

SAMPLING OF SWIMMING BATH WATER

Every Corporation public swimming bath in use was sampled once a month, giving 230 samples in all. Satisfactory results are dependent upon an adequate chlorine content of the water being maintained. When a party of bathers enter the water there is a rapid fall in the concentration of chlorine and a rise in the bacterial content of the water. Chlorine dosage must therefore be adjusted so as to leave a sufficient residue to deal with organisms present. 0.4 parts per million seemed to be the minimum amount to ensure this with reasonable certainty. At and above this dosage B.Coli was present on only 3 occasions in 219 samples. Of 11 samples containing less than 0.4 parts per million of chlorine 2 had B.Coli present. Closer examination of these samples shows that chlorine in the free state is a more effective and rapid sterilising agent than chlorine combined with ammonia in the form of chloramine. Chemical differentiation of free chlorine from chloramine often provides an explanation of apparently anomalous results.

DRAINAGE AND SEWERAGE

Mr. H. J. Manzoni, the City Engineer and Surveyor, in forwarding the details set out below, for which I am indebted to him, draws attention to the fact that the last information as to sewerage and river improvement works carried out in the City was that given in the annual report for the year ending December 31st, 1938. It is, therefore, necessary to appreciate that, with the intervention of the war period, many works of improvement had to be closed down in an unfinished condition, and the heavily depleted staff, men and materials diverted to work of importance in connection with the war effort.

Mr. Manzoni states that during the war when heavy bombing was experienced in the City, at one time there were reports of damaged sewers in 900 different places, but no serious complaints of nuisance arose and it was possible to carry out repairs by spreading the work over long periods. Water supplies for fire fighting had a priority claim on the Department's staff from 1939 onwards, and much planning and ingenuity was used in selecting sites and constructing static water basins and tanks throughout the City. A conception of the magnitude of this work can be gained from the fact that, taking water basins alone, these provided a reserve of 41 million gallons of water available for fire fighting purposes at a total approximate cost of £400,000.

Below is set out a brief list of work carried out since 1938.

The improvement scheme for the River Rea has been completed from the River Tame to its junction with the Bourne Brook at Pebble Mill, a distance of $4\frac{3}{4}$ miles. The work included deepening of the river bed some 5 feet and necessitated the underpinning of the river walls, reconstruction of numerous water intakes, construction of new bridges, etc., together with the reconstruction and enlargement to 9 ft. 3 in. diameter of some 2 miles of the Rea Main Sewer. Flooding has been prevented where this deepening has been done, but complaints of flooding in those portions of the river which have not yet received attention will entail further work within the next few years.

Valley Sewer extensions have been laid in the vicinity of Babbs Mill where a new sewer varying in size from 21 in. to 30 in. diameter has been laid from the Cole Valley Branch of the Meriden Joint Sewer along the stream in a southerly direction to Gressel Lane thence to Mackadown Lane and under the Birmingham London main railway line to Garretts Green Lane. This sewer provides for a large area of Tile Cross Estate and a new factory erected for the B.S.A. adjoining the railway line in Gressel Lane.

On the north side of the River Cole near Babbs Mill, further valley sewers have been laid to eliminate a sewage pumping station at Bucklands End, with a branch through the Boy Scouts Camping site at Yorks Wood. These sewers provide outlets for the Shard End Housing Estate, development of which is now proceeding.

A further valley sewerage scheme has been completed in the Bartley Green Area by provision of $1\frac{1}{4}$ miles of sewer from Barnes Hill, California, to Adams Hill and Field Lane. This sewer has allowed for the demolition of temporary sewage disposal works belonging to the Birmetal Factory at Bartley Green which have been a source of serious pollution of the Bourne Brook for a long period and has enabled several properties previously served by dumbwells to be picked up thereto.

Turves Green Valley Sewer has been laid at Northfield from the Rea Main Sewer in Station Road to a point near Longbridge Lane and provides drainage for Hamstead House, West Heath Main and part of Hawkesley Farm Housing Estates which are being developed by the Corporation.

In addition to these main sewers, considerable lengths of smaller sewers have been laid on many sites for prefabricated dwellings which were erected immediately after the cessation of hostilities in an effort to palliate swiftly the serious housing shortage.

In King's Norton area the sewers laid by the old R.D.C. in the vicinity of Beaks Hill Road became seriously overcharged due to private developments in this watershed and caused serious flooding to premises and pollution to the stream and an ornamental pool which it fed. Reconstruction of this sewer has recently been completed, a brick sewer 27 in. to 42 in. diameter now taking the place of the original 12 in. to 15 in. diameter pipes.

During the period under review, the Corporation have laid out for housing purposes the following principal estates necessitating construction of many miles of foul and surface water sewers.

Lea Hall Estate.

Kents Moat Estate.

Quinton Housing Estate.

Streetly Housing Estate.

The Grove Estate, Harborne.

Chestnuts Estate, Sheldon.

Hutton Estate, Washwood Heath.

The Elms Estate, Sheldon, Parts 1 and 2.

The development of the following estates is now in hand :—

Shard End Housing Estate, Parts 1 and 2.

Garretts Green Housing Estate.

Heathy Farm Housing Estate.

Woodthorpe Farm Housing Estate.

Kitwell Farm Housing Estate.

California Housing Estate.

Hawkesley Farm Housing Estate.

Fordrough and Rednal Road Estate.
Greenlands and Nimmings Farm Housing Estate, Part 2.
Rednal House Estate, Longbridge.
Brandwood Park Housing Estate.
Garretts Green Estate.
Booths Farm Estate.
Hilly Fields Estate, Harborne.
Court Oak Road Estate.
Turves Green Estate.
Ward End Hall Estate.

Taking into account the sewers which have been completed up to December last, the total length of sewers now laid in the City is 1,535.29 miles, an increase of 69 miles since 1938.

COLLECTION AND DISPOSAL OF REFUSE

The duties of collection, utilisation and disposal of domestic refuse and certain trade refuse, the cleansing of cesspools, privy pans and privy middens, and the removal of condemned meat, offal and other refuse from the City Markets and Abattoirs, fall within the jurisdiction of Mr. W. H. Andrews, General Manager of the Salvage Department, who has kindly supplied the following information.

Refuse Collection

A fleet of 207 mechanical vehicles, comprising electric, petrol and diesel types, is employed in the work of refuse and salvage collection and they are so designed as to minimise dust dissemination during loading operations. In April, 1950, the last horse-drawn refuse collection vehicles in Birmingham were replaced by mechanical transport.

Refuse Disposal

The quantity of refuse and other materials dealt with by the Salvage Department during 1950 was 358,047 tons, which included house and trade refuse, kitchen waste, cesspool contents, and markets and abattoir wastes.

This figure shows an increase of 25,154 tons over 1949, and excluding cesspool contents which are disposed of into sewers, it was the highest annual tonnage dealt with in the history of the Department. Although a proportion of the refuse was disposed of by controlled tipping—this being mainly material of an incombustible nature—the bulk of the refuse was dealt with at the five Refuse Utilisation and Salvage Works of the Department.

The Salvage Department also undertakes the removal of street sweepings from various depots of the Public Works Department and 26,520 tons of such materials were removed in 1950.

Recovery of Waste Materials and By-products

The recovery from house refuse of those materials suitable for re-use in industry continues to be an important part of the activities of the Salvage Department. Large quantities of waste paper, ferrous and non-ferrous scrap, textile waste, bones, bottles and jars, etc., were recovered and sold during the year.

The separate collection of kitchen waste from some 8,000 communal receptacles provided by the Corporation continued and this material was converted into sterilised food for pigs and poultry. Those materials collected from the City Markets and Abattoirs which possessed residual values were treated in the Department's Organic Plant for the production of feeding meal, fat and fertilisers.

Provision of Dustbins

An event of considerable importance in the history of the Department occurred on 1st April, 1950, with the inauguration of the scheme whereby dustbins for the temporary storage of house refuse are provided and maintained by the Corporation at the cost of the General Rate Fund. It is estimated that an average of 40,000 bins will be provided under these arrangements each year and, with the introduction of the new rate-borne scheme, the Voluntary Dustbin Hire and Renewal Scheme, which had been operated by the Salvage Department since 1923, was terminated.

Cesspools

At the end of 1950 there were 179 cesspools, serving 293 premises, being regularly emptied by the Salvage Department. Twenty-nine cesspools were abolished during the year in consequence of the premises being connected to main sewers and four new cesspools were added.

Privy Pans and Middens

There are still 226 pans and 14 middens being emptied regularly, 12 pans having been abolished during 1950. The pans and middens remaining in use are situated in the outlying parts of the City.

SANITARY INSPECTION

The work of the general sanitary inspectors has been carried on steadily and vigorously throughout the year, and the following statement indicates the main headings under which visits were paid :—

For housing complaints	70,933
For other house inspection	492
For infectious diseases	1,552
For inspection of courts	1,153
For inspection of manure receptacles	412
For inspection of drainage (construction or repair)	4,310
For drain tests (smoke or water)	232
To common lodging houses	259
To houses let in lodgings	1,408
To outworkers	420
To school premises	12
To offensive trade premises	73
To workshops and factories, etc.	1,954
For rodent control	349
To tips	124
For miscellaneous complaints	10,630
To see owners or agents	2,116
To food preparation premises	6,710
To milkshops	6,375
For other purposes	13,794
Unsuccessful visits	17,994
TOTAL VISITS AND RE-VISITS	141,302

During the year notices were served for the following work to be done :—

Repairs to houses	48,256
Houses to be cleansed by owner	2
Houses to be cleansed by tenant	12
Houses to have better ventilation	19
Houses to have proper water supply	305
Houses to be provided with damp proof course	22
Water or filth to be removed from cellars	37
Spouting to be repaired or renewed	4,621
Water closets to be repaired or reconstructed	1,795
Water closets to be cleansed	8
Additional water closets to be provided	—
Wash-houses or ashplaces to be repaired or limewashed	312
Soilpipes to be repaired or renewed	79
Defective drains	269
Additional drains needed	27
Sanitary sinks to be provided	26
Sinks to be repaired	716
Yards to be paved or repaired	190
Accumulations of rubbish, manure, etc., to be removed	136
Dangerous premises reported to City Surveyor's Department	684
Reports to other departments	1,028
Other defects	708

The total number of notices served during the year was 12,886, of which 295 were preliminary notices and 12,591 were statutory notices.

SUMMONSES TAKEN OUT DURING THE YEAR WERE AS FOLLOWS :—

General nuisances	1,135
Dogs fouling footway	3
Contraventions of the Shops Acts	3
Houses let in lodgings	15
TOTAL	1,156

Magistrates' Orders were obtained in 153 instances.

Repairs to Properties

During the year the number of complaints received with respect to housing defects showed a decrease over those of the previous year. This reduction was probably due to the general improvement in the availability of materials and labour for this class of work.

The procedure laid down by the Health Committee for the service and enforcement of notices under the Public Health Act 1936 with the minimum delay has been relentlessly applied. So far as is reasonable every effort has been made to reduce the lapse of time between the date of the investigation of the complaint and the execution of the work to comply with the notice, whether by the owner or by a contractor selected by the department at the default or request of the owner.

At their meeting in January, 1950, the Health Committee considered a report of the Medical Officer of Health and gave authority for the adoption of a house to house inspection procedure by the inspectorial staff of the Department for the more effective discharge of the duties of the Health Committee under the Public Health Act, 1936. Authority was given for the appointment of additional staff, and as it was realised that the office accommodation provided for the existing staff was already overcrowded, alternative central accommodation for the staff of the Chief Sanitary Inspector was obtained at 141, Newhall Street. It is anticipated that the move to this building will take place early in 1951.

House Property situated on Redevelopment Areas yet to be vested in the Corporation

During the past year the Vesting Programme was for nearly six months virtually at a standstill. Much tact and persuasion were necessary to ensure that essential repairs were carried out by owners to houses lying within the boundaries of the Redevelopment Areas, but not yet vested in the Corporation. These owners showed increasing reluctance to spend much money on works of maintenance in view of the likelihood of the properties becoming vested in the Corporation at an early date.

A further difficulty arose with the decision of the Central Areas Management Committee to extend the period from 14 days to 3 months between the making of a Declaration of intention to vest properties and the actual date of vesting and entry by the Corporation. The Health Committee decided that notices in respect of urgent repairs should continue to be served on owners and enforced during this period.

Rent Restrictions Acts

During the year 142 applications were received for inspections to be made under the provisions of the above Acts with a view to a disrepair certificate being issued. Conditions were found to warrant the issue of disrepair certificates in 117 cases. 318 visits were made by inspectors in this respect under the Rent Restrictions Acts during the year.

Town and Country Planning Act, 1947

This year has seen a very considerable increase in the number of applications for planning permission in accordance with the requirements of the above-mentioned Act, and these applications have been referred by the City Engineer and Surveyor to this Department for observations before being placed before the Town Planning Committee for consideration. In a large number of instances the recommendations of this Department have been acted upon and possible breaches of health legislation and codes of practice have been avoided.

Section 59, Birmingham Corporation Act, 1946

Notices are served under this Section on persons responsible for the opening and cleansing of obstructed drains, calling upon them to remove any obstruction within 24 hours. If the notice is not complied with within the time specified, the Corporation may carry out the work necessary to abate the nuisance and expenses so incurred may be recovered.

This Section continues to be of great help to the working of the Department and of benefit to both owners and occupiers alike. Many requests for this Department to carry out the work are made immediately on service of the notice, and so far little difficulty has been experienced in recovering expenses incurred.

Total number of notices served during 1950	1,409
Work carried out by owners in time specified	948
Orders given by Corporation to builders to carry out necessary work	461

Section 32, Birmingham Corporation Act, 1948

Notices are served under the provisions of this Section where a dwellinghouse is found to be in such a defective state that in the opinion of the Corporation unreasonable delay would be occasioned by following the procedure prescribed by Sections 93 to 95 of the Public Health Act, 1936, for the abatement of nuisances.

The notice states that the Corporation intend to remedy the defective condition of the dwellinghouse after nine days unless the person on whom the notice was served informs the Corporation of his intention to remedy the defects. If the work required is not completed in a reasonable time the Corporation may themselves execute the work and any expenses reasonably incurred by them may be recovered.

Right of appeal can be exercised on varying grounds by the person on whom the notice is served. However, the smooth working of the section is demonstrated by the fact that since the operation of the Act any disputes as to costs of work carried out have been settled without recourse to Court Action. Of the accounts submitted for the work carried out by the Corporation in 1950 (see below) only thirteen were outstanding in February, 1951.

If the Corporation undertake the work, an order is placed with a builder approved by the Department. Such action obviates delay in the execution of the work.

Number of Notices served	446
Work carried out by owners	350
Work carried out by Corporation at request of owners	11
Work carried out by Corporation at default of owners	85

Section 138, Public Health Act, 1936 and Section 30 of the Water Act, 1945. (Provision of Internal Water Supplies).

The Corporation is empowered to require owners to provide a separate internal water supply in each dwellinghouse found to be suitable for such provision. Following the resumption of action under this Section in January, 1948, there now remain outside the five Redevelopment Areas very few houses without a separate piped water supply. Of those remaining the majority of the occupiers have expressed themselves unwilling to accept a water supply within the house and of the others, the lack of a readily accessible water main or facilities for drainage have prevented the provision.

During the year 243 notices were served for the provision of an internal water supply, and supplies were installed in 328 houses. This figure includes action in respect of some notices served in 1949.

In 197 cases occupiers refused the installation and on the Committee's instructions no further action was taken.

Enforcement Section

In March, 1947, this special section of the Department was instituted, and has been of inestimable value.

During the year 133 specifications were prepared as against 91 for 1949. The total cost of works involved is in the sum of £5,876 9s. 5d. Ninety-eight of these specifications dealt with the repair of 216 defective houses, the majority of which were of low standard, and involved a cost of £3,949 2s. 5d. This figure represents nearly 70% of the total cost of works involved and accounts for 74% of the number of specifications prepared by the Section. The cost of repair to an individual house in some instances was as low as £20, whilst in others it exceeded £100.

With only three exceptions all works have been executed by contractors on a "Costs plus profits basis." This procedure, which was

extensively used during 1949, has been fully maintained for the period under review and has obviated unavoidable delays often experienced in the carrying out of essential property repairs by means of tender.

It is interesting to note that whilst there was a decrease of approximately 16% in the number of defective houses repaired at the default of owners, there was a marked rise in the number repaired at their request, representing an increase of 50% on the figure for 1949.

	<i>No. of defective houses repaired at default</i>	<i>Cost</i>
1949	76	£1,237 13 9
1950	64	£856 2 5
	<i>No. of defective houses repaired at request</i>	<i>Cost</i>
1949	102	£2,116 15 2
1950	152	£3,093 0 0

Section 275 of the Public Health Act 1936 permits the Local Authority to carry out works by agreement with the owners, and Section 291 of this Act provides for the recovery of the monies expended by repayment on an instalment basis over a period to be agreed upon.

The desire of owners to use this Section has shown a steady increase since 1948 but has never been so marked as at present. This is no doubt due to the fact that owners are experiencing great difficulty in complying with statutory notices owing to the steady increase in labour and materials charges maintained during the post war period.

	<i>Jobs</i>	<i>Houses</i>	<i>Cost</i>		
			£	s.	d.
<i>Section 92, Public Health Act, 1936</i>					
At default of owners	49	64	856	2	5
At request of owners	49	152	3,093	0	0
<i>Section 56, Public Health Act, 1936</i>					
At default of owners	3	37	199	19	6
At request of owners	1	3	14	18	0
<i>Section 47, Public Health Act, 1936</i>					
At default of owners	1	10	19	10	11
<i>Section 39, Public Health Act, 1936</i>					
At default of owners	1	1	133	13	8
At request of owners	1	3	230	10	6
<i>Section 44, Public Health Act, 1936</i>					
At default of owners	3	26	196	3	10
<i>Houses provided with internal water supply</i>					
At default of owners	7	10	295	12	3
At request of owners	10	21	411	5	9
<i>Houses already having internal water supply, but where supply was insufficient—improvement effected</i>					
At default of owners	1	3	25	12	2
At request of owners	4	49	351	18	11
<i>Provisions of Houses let-in-lodgings Bye-laws</i>					
At request of owners	3	3	48	1	6

Repairs and Materials

The general position in regard to the availability and supply of materials and labour for jobbing building has improved considerably. Timber however, still remained a rationed and scarce commodity and at one time a shortage of cement was experienced. Costs of materials and labour continued to rise during the year resulting in a higher cost of maintenance in all classes of property.

Offensive Trades

On expiry of the term of 10 years the existing Bye-laws required re-enactment, and a draft of proposed new Bye-laws has been submitted to the Minister of Health for his approval. The proposed Bye-laws have been examined by the Health Committee and are, with only minor variation, similar to the existing Bye-laws.

Complaints were received in the early part of the year in regard to one trade premises and following discussion with the management, works of improvement were carried out and no further complaints have been received.

There were 73 visits made to Offensive Trade premises during the year.

Common Lodging Houses

The common lodging houses in the City have continued to be used to their full capacity.

At the end of the year there were 14 registered common lodging houses affording accommodation for 772 males and 46 females.

Number of houses on register (for males only)	.....	.....	.....	13
Number of houses on register (for females only)	.....	.....	.....	1
Number of lodgers allowed	.....	.....	.....	818
Number of visits	.....	.....	.....	259

One common lodging house which was closed during 1949 was re-conditioned and re-opened at the beginning of the year.

During the year 259 visits were made by inspectors including 105 visits at night. Where contraventions were found the sending of warning letters produced the desired effect, and in only one case was the service of a notice under the Bye-laws necessary.

In conjunction with the Chief Fire Officer and the City Engineer and Surveyor a review was made of the fire precautions at all common lodging houses and improvements to escape and prevention methods suggested where required.

The keeper of one common lodging house made application to use part of the premises as a public cafe, involving thereby a reduction in the lodging house amenities. Permission was refused and on subsequent appeal to the Minister of Town and Country Planning the Council's decision was upheld.

Houses Let in Lodgings

New Bye-laws have been prepared and a draft submitted to the Minister of Health. Pending consideration by the Ministry of the issue of new model bye-laws, action has been deferred for the time being.

At the end of the year there were 321 houses let in lodgings on the register containing 2,211 rooms. They were let as follows :—

Number of lets of single rooms	872
Number of lets of two or more rooms together	602
Certified accommodation (persons)	3,621

There were 516 visits and 892 re-visits.

232 notices under the Bye-laws and a total of 15 summonses were issued during the year.

Tents, Vans and Sheds

Sites, where these are known to be placed, have been visited in accordance with the requirements of the Public Health Act, 1936. Co-operation has been maintained with the City Engineer and Surveyor in respect of new and existing sites.

Canal Boats

The number of boats inspected on the canals within the City area was 752.

These boats were registered for the accommodation of 2,220½ persons, and when inspected were found to be carrying 540 men, 467 women and 507 children, represented in terms of adults as 1,260½.

Of the 752 boats inspected during the year it was found that 654, or 87% were in good condition and conforming with the Act and Regulations, while in 98, or 13% of the total, various contraventions were found.

Complaint notes were duly served on the owners in all cases. There were 47 contraventions outstanding at the end of 1949, and a further 225 were found during 1950. Of these, 202 were remedied during the year, leaving 70 still outstanding at the end of December.

It has not been necessary during the year to take any Court proceedings under the Act or Regulations.

The number of canal boats on the Birmingham register at the end of 1950 was 586.

Tips

During the year 124 visits of inspection were made to refuse tips within the City. The majority of these tips are privately owned and, at many of them, hauliers may deposit refuse on the payment of a small fee to the owner. Bye-laws made under Section 58 of the Birmingham Corporation Act 1946 prescribe means of disposal of refuse with a view to obviating nuisance on such tips and, with certain exceptions, limit the depth of layers of refuse to 6 feet.

Together with the relevant sections of the Town and Country Planning Act, 1947, these bye-laws have proved successful in preventing the establishment of new tips in unsuitable places and done much to reduce the continuance of nuisance from existing tips in populated areas.

Complaints of infestations of tips by crickets, flies and rats have decreased since the bye-laws have been in operation, and it is also noted that, where tipping operations have ceased, efforts are now made to improve the amenities of the site by surfacing with grass.

Where contraventions of the Bye-laws have been found representatives of the owners have been interviewed on the site and the necessary change in method of tipping has usually been effected at once.

In one case during the year it was found necessary to serve a Statutory Notice following non-compliance with a warning letter.

Pleasure Fairs

On receipt of information from the Clerk to the Justices that an application has been made for a music licence, visits are made to the site of the Fair. Unless satisfactory provision is to be made for sanitary accommodation and water supply, an objection is raised by the Chief Sanitary Inspector at the Court Hearing and the application opposed.

The work of the Department has been materially assisted by the provisions of the Town and Country Planning Act, 1947, which requires planning approval to be given by the Town Planning Committee prior to the holding of a pleasure fair on a site not previously so used. The observations of this Department are sought in every case before the application is considered by that Committee, and in this way the Department's requirements can now be made a condition of the granting of approval.

Bye-laws are at present in course of preparation by the City Council with respect to pleasure fairs.

Infectious Diseases

1,552 visits of enquiry were made by inspectors on behalf of the Medical Officer of Health in connection with outbreaks of infectious disease, and many other visits were made in order to keep known contacts of such diseases as smallpox and typhus fever under surveillance.

Louse Infestation

All cases of louse infestation were treated at Bacchus Road Cleansing Centre, this being the only centre now open for such treatment.

		<i>Men</i>		<i>Women</i>		<i>Children</i>	
		<i>Head</i>	<i>Body</i>	<i>Head</i>	<i>Body</i>	<i>Head</i>	<i>Body</i>
1950	—	278	139	15	33	27
1949	—	361	188	21	—	4
1948	...	—	539	155	50	—	2
1947	—	567	97	18	14	—

Most cases of infestation occurring in women are referred by Factory Welfare Officers and the out-patient departments of the various hospitals, while the male cases are largely referred by the keepers of common lodging houses and the medical practitioners in the area.

Scabies

The decline in the incidence of scabies has continued, a total of 940 cases being treated at the three scabies centres in 1950 as compared with 1,630 in 1949. The 1950 figure gives an average weekly attendance of 18. The use of Benzyl Benzoate in treatment has been highly successful, 93% of the cases requiring no more than one application. A health visitor investigates each case of scabies in an endeavour to ensure that contacts are also treated.

Treatment of Scabies

<i>Clinic</i>	<i>Men</i>	<i>Women</i>	<i>Children</i>	<i>Total</i>
Bacchus Road	119	151	165	435
Floodgate Street	183	—	—	183
Sheep Street	—	162	160	322
Total				
1950	302	313	325	940
1949	464	556	610	1,630
1948	1,067	1,203	1,281	3,551
1947	2,233	2,677	2,522	7,432

Disinfection

The following table gives details of the work done during 1950 :—

Houses disinfected after tuberculosis	1,218
Houses disinfected after miscellaneous diseases (on request)	2,593
Beds disinfected	423
Miscellaneous articles of clothing and bedding disinfected	4,213

Disinfestation of Verminous Premises

Complaints of the presence of bugs, fleas, lice, black beetles, cockroaches, ants, crickets, etc., in houses are investigated, and in all cases where it is found necessary, free treatment of domestic premises is undertaken by the Department. During the year 1,548 houses were so treated.

Disinfestation of municipal houses and the contents if found to be infested is undertaken by arrangement with the Estates Department. Treatment is always carried out prior to the removal of a family from an infested house to a house in Corporation ownership. 926 houses were disinfested during the year.

From time to time our attention has been drawn to the filthy condition of a house from which an aged person has been removed to hospital. Where there are no known relatives capable of removing filth or matter likely to be a danger to health, the disinfecting staff undertake this work. Fourteen houses were cleansed during the year and 38 beds were collected for destruction.

Advice is frequently sought by occupiers of business premises as to the best method of disinfesting their premises of steam flies, cockroaches and ants. This is given in every case and frequently disinfestation of the premises is carried out, a charge being made for the service.

A heavy infestation of cockroaches at one of the City's Public Baths and a serious infestation of moths at a clothing factory were dealt with during the year.

Court Cleansing

A staff of two men is engaged in cleansing some of the courts in the congested portions of the City which have not been vested in the Corporation. The work entails cleansing the water closets and ash sheds, the removal of obstructions from drains and the cleansing of the yard surfaces.

During the year 2,652 yards, 16,908 water closets and 5,288 ash sheds were so cleansed, and 866 drains were unstopped by this staff.

Fifty-one courtyards receive regular weekly cleansing.

Pig Keeping

The provisions of the Defence Regulation No. 62B have been extended for a further period of one year. This regulation makes it lawful for pigs to be kept in any place notwithstanding any provision to the contrary in any lease or tenancy or in any enactment, provided they are not so kept as to be prejudicial to health or a nuisance. Bye-laws with respect to pig-keeping are, therefore, temporarily suspended.

The practice of keeping pigs in gardens and small plots of ground in close proximity to houses continues, and it is fair to say the majority are kept in such a manner that little nuisance is caused. Premises where pigs are known to be kept are periodically inspected, and verbal warning given where necessary. It is occasionally necessary to serve notices to improve conditions and these are, in the main, promptly complied with. In one case it was necessary for a summons to be issued and a Magistrates' Order made before improvements were effected.

Disposal of the Dead

Burials take place in certain churchyards in the City and prior notification is given to the Medical Officer of Health by the church clerk in order that an inspection can be made by the sanitary inspector to ascertain that the depth of the grave satisfies the requirements of the Birmingham Corporation Act, 1946.

During the year eight exhumations were carried out under licence from the Home Office and in each case a sanitary inspector was present. These exhumations usually take place for the purpose of re-interring a body in the same grave as that of a relative.

A growing tendency towards cremation has been apparent during the last ten years. It is noted that during the first year the Municipal Crematorium at Lodge Hill Cemetery was opened, i.e., 1937, there were 185 cremations. In 1939, from details supplied by the General Manager of the Parks Department, Mr. G. E. E. Ross, who manages the crematorium and cemeteries of the Corporation on behalf of the Parks Committee, there were 263 cremations, 194 of which were in respect of Birmingham residents. In 1950 the crematorium dealt with a total of 2,003, 1,450 being Birmingham residents. The number interred in the City cemeteries in 1939 was 9,465 and in 1950 this figure had decreased to 7,753. The above figures are not conclusive in that the Perry Barr Crematorium, which is privately owned, undertakes cremations to the extent of 3,000 per annum at least. This latter figure includes cremations of Birmingham residents and in addition residents from the areas of Staffordshire, Worcestershire, Warwickshire, Central and North Wales. Further interments take place in churchyards and privately owned cemeteries but it seems that the figures as set out above give an indication that there is a growing preference in the public mind for cremation.

Mortuary, Summer Lane

This building provided by the generosity of Mr. and Mrs. T. Sidney Walker, in 1931 and handed over to the then Public Health and Maternity and Child Welfare Committee in 1934, has continued to serve as a resting place to which the dead could be brought and remain until the time for burial instead of being kept in small houses with living relatives. During 1950 the building was used for the temporary reception of the dead on seven occasions.

RODENT CONTROL

The Prevention of Damage by Pests Act, 1949, came into operation from 31st March, 1950, and greatly strengthened the powers of authorities. The new Act lays upon Local Authorities the primary obligation to ensure, so far as practicable, that their areas are kept free from rats and mice and occupiers of premises must give notice when they believe that rats or mice are present on the premises in substantial numbers. This leads to an investigation into the probable relation of the presence of rats or mice in particular premises, to a general infestation of the locality. The occupier still has the right to destroy the rodents on his premises but that does not relieve him of the duty of giving notice of their presence in substantial numbers.

Blocks of infested property in the occupation of different persons are dealt with as one unit and the Act sets down the arrangement by which this is done.

Surface Infestation

There has again been an increase both in the number of complaints received and in the number of premises treated for infestation. Comparative figures for the past three years are :—

	1950	1949	1948
Complaints	4,843	3,536	2,649
Treatments :			
{ Residential			
Property	3,614	2,458	1,765
{ Other Property	1,615	1,240	1,120

Only 56 of the infestations dealt with in 1950 were regarded as of major size.

Sewage System

In the older parts of the City, mainly within two miles of the City Centre, defective and disused drainage systems continue to provide a harbourage for rats. Tracing of these systems and repair or sealing of drains therefore forms an essential part of rodent control. It is apparent from this that the drainage system of the Inner Ring requires more attention than do other parts of the City and for an experimental period it has been decided to give 3 sewer treatments here in 14 months whilst elsewhere there were two treatments during the year.

The 8th, 9th and 10th maintenance sewer treatments were completed during 1950 and the 11th treatment was commenced.

Salvage Department Destructors

The five destructors continue to provide the most difficult infestations with which to deal and the inherent difficulties are such that it has not yet been possible to clear them completely of rodent infestation. From the small nucleus of rats which survive a treatment there occurs again a build-up of rat population in the space of a few months. After treatment by baiting and poisoning the remaining rat population has been dealt with by intensive hand killing, particular attention being paid to the hoppers. At Montague Street 1,310, 1,146, 876 and 423 rats were killed in the respective hoppers by this technique.

The destructors are regularly inspected at night, as it is only when the premises are quiet that an estimate of their rat population can be made.

General

The section is actively engaged in the study of rodents and in methods of destroying them. Lectures on Rodent Control are given from time to time. These and other publicity have brought before the public the value of Rodent Control and no doubt largely account for the rising number of complaints, particularly those in relation to residential property.

SUPERVISION OF SHOPS

At the beginning of the year, four whole time inspectors were available to carry out the systematic inspections required by the provisions of the Shops Acts 1912-36, The Young Persons Employment Act, 1938, and the numerous Closing and Exemptions Orders. Defence Regulation 60 AB modifying the Shops (Hours of Closing) Act, 1928, was in operation at the commencement of the year and remained in force until 4th March.

On the 1st October the Shops Act, 1950, came into operation ; this Act merely consolidated but in no way altered existing legislation relating to retail shops. In consequence no changes in the administration of the Supervision of Shops were considered necessary.

The City Council, on the 20th October, brought into operation an Order made under Section 2 (i) of the Shops Act, 1950, for the early closing of shops during the winter months. This Order made the general closing hour again 7 p.m. with 7.30 p.m. on the " late day " and was in force for the remainder of the year.

The work of the Shops Act inspectors is shown in the following summary :—

GENERAL INSPECTIONS

Visits	8,497
Re-visits	2,235

SPECIAL VISITS

Sunday trading	1,696
Night closing	1,520
Half-day closing	3,881
Appointments, etc.	307

TOTAL VISITS	18,136
--------------	--------

STREETS PATROLLED

Half-day closing	3,730
Night closing	1,256
Sunday trading	1,996

TOTAL STREETS (Patrolled)	6,982
---------------------------	-------

NOTICES AND STAFF ACCOMMODATION

Shops Act forms provided	1,177
Seats provided for female assistants	22
Defects in staff accommodation remedied	291

OFFENCES REPORTED

Half-day closing	54
Night closing	103
Sunday trading	40
Warning letters sent	118
Prosecutions	3

It will be noted that there were only 3 prosecutions in 1950 ; this is fewer than the previous year when there were 10.

In one of these 3 cases it was found that a person under 16 years of age had been employed at a cinema on more than the number of Sundays in the same month allowed under Section 11 of the Shops (Sunday Trading Restriction) Act, 1936. Under this Act, which has since been replaced by the Shops Act, 1950, a youth who has been employed for more than 4 hours on any Sunday may not be so employed for more than 3 Sundays in the same month.

As the management of this cinema had committed similar offences on previous occasions and had had warning letters and been thoroughly instructed in the working of this Act by a Shops Act Inspector, it was felt necessary to take proceedings in respect of this offence. At the subsequent court hearing a fine of 40/- was imposed.

SUPERVISION OF INDUSTRIAL PREMISES

Smoke Abatement

Inspections and observations of the many process-furnaces and steam-raising boilers in industrial premises within the City, continue to indicate that hand-fired installations, burning bituminous coal, contribute largely to the atmospheric pollution recorded in the standard deposit gauges.

The difficulties in avoiding smoke emission from such fuel-burning installations are due partly to inadequate arrangements for the control of secondary air admitted so as to ensure complete combustion of the volatiles discharged, and partly to the inadequate training of furnace or boiler firemen. In the case of installations equipped with mechanical stokers, little or no smoke need be produced, even when burning bituminous coal, providing that the installation is kept in good order and the rates of stoking and of the admission of primary and secondary air supply are adequately controlled, so as to ensure complete combustion. Certain types of mechanical stokers are limited to the use of graded coal, but if arrangements can be made in this respect, maximum efficiency of combustion can be maintained with a saving in the cost of fuel and the elimination of heavy emissions of black smoke.

Advice and practical demonstrations in different methods of hand-firing to suit the plant and type of fuel in use have been given to stokers and furnace men at various industrial premises during the past year. This advisory procedure has, in most cases, been followed by a marked improvement with regard to excessive smoke emissions, and the managements of such premises have also been advised of the educational facilities available at technical colleges in the area, in the form of classes on boiler-house practice and fuel-technology, arranged by the recently reorganised

Regional Fuel Technology Advisory Committee of the Ministry of Education. It is clear, however, from the attendance at such classes, that some incentive is required before such classes will be satisfactorily filled.

The co-operation and liaison with the City Surveyor, and Town Planning Department, have been continued, with the result that constructive and far-reaching work of smoke abatement has been accomplished in relation to the installation of new fuel-burning plant in industrial premises. It should be recorded that architects and managements are in general sympathetic towards suggestions put forward by the Department, and are, in most cases, willing to incorporate alterations or additions to the plans and applications submitted.

It may once more be recorded, however, that no application has been received under the provisions of Section 46 of the Birmingham Corporation Act, 1948, in connection with the proposed installation of new fuel-burning plant.

Noise Abatement

Under the Birmingham Corporation Act, 1935, Section 58, limited powers of enforcement are available in relation to excessive noise.

During the past year, complaints which have been dealt with under this Section have related to excessive noise from the working of various classes of machinery sited in industrial buildings. Such machinery included defective cyclone-apparatus, leather trimming guillotines, air-compressors and belt-driven overhead shafting on party walls.

By co-operation with the industrial managements concerned, remedial measures have been suggested and employed, so reducing complaints to a considerable extent.

As in previous years, in order to co-operate in the electricity load-shedding programme, various firms have instituted night-shifts, with the result that excessive noise during these shifts disturbs the inhabitants of adjacent houses. The investigation of the complaints which follow, frequently involving night observations, is followed by advisory and consultative discussion with managements, for each particular problem has to be considered on its merits, and it is true to say that many of the managements concerned have done their utmost to eliminate or reduce the noise created in order to satisfy the residents of near-by houses.

Fumes

The introduction of a new process at a Chemical Works situated in the area of a neighbouring Local Authority, gave rise to many complaints of an offensive odour which penetrated into houses, and became very objectionable.

The northern districts of the City were those mainly affected, but at one time or another, and depending upon wind direction and weather conditions, this nuisance was prevalent in practically all suburbs.

The offending process, which was recognised as a Registered Process under the Alkali, etc., Works Regulation Act, was referred to H.M. Alkali Inspector and in due course the escape of the objectionable fumes was controlled, and all complaints ceased.

Other matters investigated and satisfactorily dealt with included fumes from the refining of scrap-metal containing a high magnesium content, diesel engine exhaust gases, and the exhaust fumes from paint and cellulose-spraying operations.

Town and Country Planning Act, 1947

The importance of full consultation and co-operation between officers of the Public Works Department concerned with Town Planning, and the Smoke and Factory Inspectors of the Public Health Department, is well illustrated by the beneficial and constructive work that has taken place in these matters during the past year, especially in regard to the siting of industry, and to proposals for new development under the Town and Country Planning (Use Classes) Order, 1950. Liaison between the officers concerned has been such that many proposals for the establishment of trade-processes have been modified at an early stage, so that nuisance from noise, smoke or fumes, which would inevitably have arisen, has been prevented. Advice to those proposing new developments has, in general, been willingly accepted and many a district's amenities have been preserved.

Factories Act, 1937

The number of visits paid to factories with mechanical and non-mechanical power totalled 1,954.

This figure includes visits paid under Section 9 of the Factories Act, 1937, also advisory and routine visits in respect of work in progress following service of a notice.

During factory inspection two instances of gross overcrowding of the females employed in the respective work-rooms were found, and the appropriate action was taken to secure a remedy.

Benefit has accrued from the co-operation with the Public Works Department whereby plans deposited under the building bye-laws for new factory sanitary accommodation are inspected. Several infringements of the Sanitary Accommodation Regulations, 1938, have thus been remedied at that early stage.

Factories on the register are classified as follows :—

Factories with non-mechanical power	.....	.....	.....	.....	1,099
Factories with mechanical power	.....	.....	.....	.....	5,761

FACTORIES ACT, 1937

1. INSPECTIONS FOR PURPOSES OF PROVISIONS AS TO HEALTH (including inspections made by Sanitary Inspectors).

<i>Premises</i> (1)	<i>Number on Register</i> (2)	<i>Number of</i>		
		<i>Inspections</i> (3)	<i>Written notices</i> (4)	<i>Occupiers prosecuted</i> (5)
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authority	1,099	81	27	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	5,761	1,863	191	—
(iii) Other premises in which Section 7 is enforced by the Local Authority (excluding outworkers' premises)	229	10	—	—
TOTAL	7,089	1,954	218	—

2.—CASES IN WHICH DEFECTS WERE FOUND

Particulars (1)	Number of Cases in which Defects were found				Number of cases in which prosecutions were instituted (6)
	Found (2)	Remedied (3)	To H.M. Inspector (4)	Referred By H.M. Inspector (5)	
Want of cleanliness (S.1)	15	4	—	20	—
Overcrowding (S.2)	3	3	—	2	—
Unreasonable temperature (S.3)	1	2	—	1	—
Inadequate ventilation (S.4)	3	1	—	3	—
Ineffective drainage of floors (S.6)	—	—	—	—	—
Sanitary conveniences (S.7)					
(a) Insufficient	27	31	—	33	—
(b) Unsuitable or defective	357	331	—	191	—
(c) Not separate for sexes	8	6	—	14	—
Other offences against the Act (not including offences relating to outwork)	20	11	11	—	—
TOTAL	434	389	11	264	—

Industrial Canteens

During routine inspection of factories under the Factories Act, 1937, the inspectors concerned take the opportunity of inspecting any canteen arrangements at such premises, and where defects are found, the managements are notified and instructed as to the appropriate remedy.

Close co-operation and interchange of views between H.M. Factory Inspectors and their canteen advisors, have obviated any duplication of action and risks of misunderstanding between the two departments, both engaged on this work. Information received as to premises where new canteens are proposed to be established, has resulted in early inspections being made and advice tendered to the occupiers of the premises, so ensuring that the rooms to be used are satisfactory, before a catering licence is granted.

Outwork

In certain trades work is given out to be done in the homes of the workers. To prevent danger to health, legislation contained in Section 110 of the Factories Act, 1937, requires such employers to supply lists of these employees, known as "outworkers," twice a year to the local authority.

Inspection of outworkers' premises is carried out as a part of the routine of the sanitary inspector on whose district they are situated and the necessary steps are taken to maintain a satisfactory standard.

<i>Nature of Work</i>	<i>No. of outworkers in August. (List required by Sect. 110(1)(c))</i>
Wearing apparel :	
Making, etc.	147
Furniture and upholstery	10
Electro-plate	14
Brass and brass articles	149
The making of boxes or other receptacles or parts thereof made wholly or partially of paper	30
Brush making	13
Carding of buttons	195
TOTAL	558

HOUSING

In the year under review, there has been no substantial change in the housing position. The deterioration of sub-standard houses not on the Redevelopment Areas has continued despite an even wider application of the powers of the Local Authority to require repair and abatement of nuisance, and overcrowding is still acute. Houses officially represented before the war are still occupied, and many others would justify condemnation if other accommodation for the tenants were available. There has been a marked influx of labour, some from places as far distant as Africa and India, to meet the constant labour shortage in the City, and this has further accentuated the insufficiency of suitable houses.

Considerable progress has, however, been made in the provision of new houses, the figure of 2,687 houses erected during 1950 showing an increase of 58% on the figure of 1,697 new houses erected during 1949. Other figures relating to new houses built are set out later.

So far as can be ascertained, new construction exceeded known demolition and other permanent loss of dwellings by 2,165 houses (as against 1,297 during 1949). The Registrar-General's estimate of growth of population, however, within the 12 months, June, 1949—June, 1950, amounted to 11,100 persons.

On the areas covered by the Birmingham (Central Redevelopment) Order, 1946, real progress has been made. At the end of the year 22,224 dwellings in all had been acquired by the Corporation and the work of repairing house property on these areas was proceeding systematically. Day to day and urgent repairs received constant attention and the total number completed under the Block Repair Scheme since that scheme came into operation amounted to 2,860 houses.

Although there has been no marked shortage of labour or materials except in relation to cast iron goods and soft wood, the continually rising cost of repairs has had a pronounced effect on the maintenance of houses in private ownership. This has been more noticeable in the case of houses built over 50 years ago where the effects of age add to the amount of work necessary for proper maintenance. In these cases it is often true that the cost of maintenance to standards which applied before the war is in excess of the income from rents, which remain frozen at the 1939 level.

There has been pronounced reaction against the present position by individual property owners and agents, and by their organisations. This reaction has taken two principal forms. Representations have been, and are continually being made to influence the Government to modify the Rent Restrictions Acts by allowing an increase of rents for the express purpose of effecting repairs. Notices requiring the abatement of nuisances in dwellinghouses have been resisted on the grounds of expense, and this point of view has been constantly borne in mind.

Where, however, nuisances do exist it is incumbent on the Local Authority to take action with a view to abatement, even if it proves necessary to do the work in default and recover the expenses from the owners.

If the housing situation were easier recourse could be had to demolition of houses appropriate for such action under the relevant sections of the Housing Act. In the present circumstances it is manifestly impracticable to demolish save in the most urgent cases, most urgent, that is, in relation to the housing problem in the City as a whole.

The extreme course of action leading to demolition has had to be followed in 62 cases of houses in private ownership, but action with a view to demolition continues to be restricted to those cases where demolition is the only remedy for existing conditions which are inimical to health.

This problem emphasises the need for new houses in very considerable numbers, merely to cope with the problem of the very worst houses, many literally approaching collapse or dereliction, and including the 303 occupied unfit houses formally represented for clearance before the war, and not included in the Redevelopment Scheme.

Satisfactory progress has been made in the installation of separate internal water supplies to houses not so provided. On the Redevelopment Areas 834 installations were made, leaving 2,510 occupied houses without an internal water supply. Privately owned houses are referred to later, where from the figures there quoted it may be seen that the task of securing a water installation in each house has almost been accomplished, the 333 installations made during the year leaving less than 200 cases to be dealt with in 1951.

Difficulties have been encountered in relation to privately owned dwellinghouses on the Redevelopment Areas. The known imminence of vesting, coupled with the knowledge that expenditure on repair does not enhance the compensation value, has naturally made owners unwilling to incur any expense in maintenance. Although vesting is carried out in accordance with an overall programme, it has been necessary, in cases where the cost of works is heavy, to recommend accelerated vesting.

The following figures show the number of inspections carried out by the staff of housing inspectors as distinct from the staff of general sanitary inspectors :—

No. of initial inspections in response to complaints on vested houses	7,431
No. of re-visits	32,080
No. of visits made under Part IV Housing Act, 1936 (Overcrowding), including cases referred by the Estates Department	16,109
Miscellaneous, including visits in liaison with other Departments	4,496

No figure can be quoted as properly representing the number of houses inspected or surveyed on duties under the Housing Acts (less Part IV), as revision of blocks of central and other mainly unfit property varied from a detailed internal examination of individual houses to a survey check of whole blocks ; approximately 50,000 houses were thus involved.

New Houses

During the year 2,687 houses were built, 2,016 (or 75%) by the Corporation and 671 (or 25%) by private enterprise. Of these, 538 erected by the Corporation were non-traditional in type. In addition 31 houses were re-built by private enterprise and 107 additional dwellings were provided by conversions into flats, 26 by the Corporation and 81 by private enterprise.

The gross yield of new houses during the year was, therefore, 2,825 additional houses or flats, 2,042 or 72·3% being constructed by the Corporation and 783 or 27·7% by private enterprise.

I am indebted to the City Engineer and Surveyor for these figures and also for the fuller information set out below, covering the period since the end of 1914-18 war :—

NUMBER OF HOUSES ERECTED

Year	By Private		By Corporation		Government	Total
	Enterprise	Traditional	Non-traditional	Temporary Bungalows		
1919	29	—	—	—	—	29
1920	244	553	—	—	—	797
1921	426	970	—	—	—	1,396
1922	382	810	—	—	—	1,192
1923	556	1,621	—	—	—	2,177
1924	1,201	2,004	—	—	—	3,205
1925	1,774	3,215	—	—	—	4,989
1926	1,775	5,159	—	—	—	6,934
1927	2,445	4,007	—	—	—	6,452
1928	1,487	3,505	—	—	—	4,992
1929	2,456	4,359	—	—	—	6,815
1930	1,738	6,687	—	—	—	8,425
1931	1,983	3,893	—	—	—	5,876
1932	2,159	1,703	—	—	—	3,862
1933	3,028	2,029	—	—	—	5,057
1934	4,226	837	—	—	—	5,063
1935	6,265	985	—	—	—	7,250
1936	6,926	2,285	—	—	—	9,211
1937	7,662	2,643	—	—	—	10,305
1938	7,804	3,003	—	—	—	10,807
1939	5,178	1,413	—	—	—	6,591
1940	1,183	302	—	—	—	1,485
1941	181	10	—	—	—	191
1942	26	63	—	—	—	89
1943	5	35	—	—	—	40
1944	37	2	—	—	—	39
1945	25	6	—	—	325	356
1946	550	413	—	—	1,475	2,438
1947	667	826	—	—	1,333	2,826
1948	470	1,400	—	—	1,492	3,362
1949	470	1,225	2	—	—	1,697
1950	671	1,478	538	—	—	2,687
	64,029	57,441	540	4,625		126,635

These figures relate to new houses only and do not include numbers of houses re-built after war damage nor flats provided by the sub-division of existing larger houses.

During the year 3 applications were made for grants for improvement of existing houses under Section 4 of the Housing Act, 1949 ; no scheme under that Section has yet been completed.

Housing Act, 1936

It has not yet been possible to resume slum clearance ; because of the serious housing position, action with a view to demolition of individual houses or of areas is virtually suspended, being restricted to the most extreme cases. Official representations with a view to demolition were made in respect of 56 houses, whilst 4 were made with a view to closure, this bringing the total number of such representations to 711 houses during the period September, 1939, to December, 1950.

Between 1931 and 1939 official representations were made in respect of 338 clearance areas comprising 10,407 unfit houses, and 303 houses not regarded as unfit but marked down for demolition to make possible the effective utilisation of the cleared areas purchased, or to be purchased, compulsorily. On the areas affected by housing Orders fully approved and capable of being operated when other housing accommodation becomes available, there are 120 houses still standing, 94 of them occupied. On 16 areas officially represented before the war for clearance but in respect of which proceedings ceased at some stage short of an operable Order, there are 281 houses standing, 209 of which are occupied. The redevelopment schemes embraced 70 other areas and thus the responsibility of repair, where repair is possible, fell upon the Corporation, further action under the Housing Acts being therefore abandoned. It is more than ever necessary to appreciate that, in the class of house under review, repairs cannot be carried out by private owners on a scale sufficient to arrest the effects of deterioration. There is no doubt that demolition is the most satisfactory method of dealing with these houses and even though such a course can only be made possible by the construction of new houses in replacement of those demolished, it may well be that, in the very near future, demolition of small aggregations of the very worst houses will prove to be inevitable.

It may be assumed that there are approximately 50,000 unfit houses in this City, half of these within the Redevelopment Areas gradually coming under Corporation ownership, and the other half outside the boundaries of these areas. The experience of the Corporation in the Redevelopment Areas lends support to the opinion that action with a view to demolition will have to be taken in respect of larger numbers than at present.

The following table gives particulars of individual action taken under the Housing Act, 1936, during the year.

Proceedings under Sections 11 and 13 of the Housing Act, 1936

1. Number of dwellinghouses in respect of which official representations were made	56
2. Number of dwellinghouses in respect of which undertakings under Section 11 (3) were accepted :	
(a) Not to use for human habitation	1
(b) To carry out works to render fit for human habitation	—
3. Number of dwellinghouses in respect of which Demolition Orders were made	45
4. Number of houses demolished :	
(a) In pursuance of Demolition Orders	78
(b) After the making of Closing Orders	1
(c) After an Undertaking Not to Use for human habitation had been accepted	—
(d) After representation and prior to the making of Demolition Orders	5
5. Number of dwellinghouses rendered fit for human habitation in pursuance of undertakings under Section 11 (3)	—

Proceedings under Section 12 of the Housing Act, 1936

1. Number of parts of buildings, separate tenements or underground rooms in respect of which official Representations were made	4
2. Number of parts of buildings or underground rooms in respect of which Closing Orders were made	2
Total number of houses dealt with under Sections 11 and 12 of the Housing Act, 1936, during 1950	60
Total number of houses dealt with under Sections 11 and 12 of the Housing Act, 1936, up to December 31st, 1949 (since September, 1939)	651
TOTAL AT 31ST DECEMBER, 1950	711

It has been possible to suspend action already embarked upon in the case of 110 houses. Under the authority of Ministry of Health Circular 1866 of the 8th September, 1939, 22 houses remain in occupation even though officially represented, and are regularly inspected to ensure that reasonable conditions are maintained. On certain areas purchased by the Corporation for clearance or redevelopment, 88 houses have been repaired and are being maintained by the Housing Management Department until demolition becomes practicable. At the close of the year 207 houses represented in the past as unfit for human habitation were restricted by non-user undertakings or by Closing Orders. These houses are visited periodically to secure that they are not re-occupied in contravention of the statutory restriction.

Central Redevelopment

The rate of acquisition of the areas covered by the Birmingham Central Redevelopment Order fell during the year, and for a time vesting was virtually suspended. Orders made covered 949 dwellinghouses and 74 shops with dwellings attached bringing the total acquired by the Central Areas Management Committee to 22,224 dwellings.

Repair of the houses already acquired continued at a substantial rate, and covered two main operations : block repair and day to day repair. Block repairs were on a systematic and organised basis, the 1,291 houses dealt with during the year bringing the total thus dealt with since the inception of the scheme to 2,860. At December 31st, systematic repair was in progress at a further 1,500 houses, whilst schedules and contracts were in preparation in respect of a further 2,055 houses. The average cost of repair per house under the block repair scheme during 1950 was £92, but considerably more than this sum was expended in special cases, where the benefit of saving existing housing units clearly justified the extra expenditure.

Day to day repair proved necessary in a very large number of cases, this because of the very poor standard of maintenance of a high proportion of the houses taken over. Complaints on an average of 2,600 per week were received at the Central Areas Management Office during the year. Intimations of disrepair involving 6,201 houses were sent to the Central Areas Management Department by the Chief Housing Inspector ; 5,840 were fully complied with, leaving 2,206 outstanding at the end of the year to be dealt with in 1951. These notifications did not cover the whole of the complaints received at the Public Health Department as, before forwarding, each complaint was examined as to merit, and in the light of knowledge of pending repair operations and of potential " life " of the houses affected.

A feature of any scheme of systematic block repair is that the ordinary system of advertising for tenders has to be adopted. This necessitates some delay between the date of preparation of a specification and the date of actual commencement of operations. The poor class of property involved is such, however, as to give rise to the necessity for urgent repair in respect of critical items even though it may be known that the items concerned are due to be rectified by the systematic repair scheme. This gives rise to certain administrative difficulties, but is unfortunately unavoidable if the occupied houses are to be kept in a condition of tolerable habitability pending systematic repair.

Separate internal water supplies were installed in 834 houses ; at the year end there were 2,510 occupied houses on the areas without that service. Except where houses are known to have a short life, either by reason of being earmarked for redevelopment or because of structural defects, water supplies will be installed in all houses where room exists.

Water closets were provided in 20 cases ; this in an endeavour to bring the available sanitary accommodation to a standard not less favourable than one W.C. to 2 dwellinghouses.

In all, the sum of £725,836 was expended as above by the Central Areas Management Committee during the year.

The problems now facing the Corporation on the Redevelopment Areas are formidable. To make room for progress in new building under the scheme, houses on the sites first acquired must necessarily be demolished. Other houses, perhaps on sites not required for redevelopment for some years, suffer from such serious structural and other defects that retention is impossible and demolition is inevitable. During the year 344 houses in both categories were demolished bringing the total since the inception of the scheme to 912, whilst 254 were held void pending demolition.

Under present arrangements 25% of the new houses erected by the Corporation are, when handed over for letting, regarded as earmarked for use in connection with the housing requirements arising from redevelopment. It is not at present possible accurately to assess, for the City as a whole, the numbers of new houses which it will be possible to build during the next five years but, unless a substantial acceleration in new house building proves to be possible, it would seem inevitable that large numbers of existing houses will have to be maintained in occupation for a considerable number of years, this despite the fact that those houses suffer from grave inherent defects and are of a type which, before the war, would have been swept away under the slum clearance programme. Approximately 17,000 houses within the boundaries of the Redevelopment Areas are back-to-back or of the back-to-back type.

The systematic repair scheme, supplemented by day to day repair of urgent items, has conferred very considerable, and much appreciated, benefit upon tenants, but many of the houses are of so poor a type that it cannot be assumed that the works now carried out will suffice even for a period of five years.

The following figures relate to houses in the Redevelopment Areas which were represented as unfit for human habitation prior to the war, and show the position at December 31st, 1950.

	<i>Standing</i>	<i>Occupied</i>
Duddeston and Nechells	1,252	1,084
Summer Lane	118	95
Ladywood	397	390
Bath Row	—	—
Gooch Street	922	850
	<hr/> 2,689 <hr/>	<hr/> 2,419 <hr/>

All except two of these houses (both occupied), were in Corporation ownership at the 31st December, 1950.

It at present seems likely that many of these houses will have to be continued in occupation for some years.

Housing Survey and Overcrowding

The Housing Survey of 1946 disclosed that there were within the City 6,429 houses without a separate internal water supply, 3,853 being within the central Redevelopment Areas. At the end of 1949 these figures had been reduced to 3,505 and 2,510 respectively by 834 installations in Redevelopment Areas and by 333 in privately owned houses, action in all but 5 of these latter cases being by way of Notices served under Section 138 of the Public Health Act, 1936, as amended by Section 30 of the Water Act, 1945. The following table gives details applicable to privately owned houses, outside the Redevelopment Areas, not yet provided with a water supply.

Not yet sanctioned	27
Sanctioned, not yet installed	145
Tenants refusals	561
Owner/Occupier refusals	22
Estimated life of less than five years or unsuitable. (This includes 43 on pre-war Clearance Areas)	206
Distance from water mains prohibitive	26
Represented under Housing Act, 1936—further action temporarily postponed	5
Awaiting acquisition by Estates Department	3
	<hr/> 995 <hr/>

No accurate overall information in relation to overcrowding is available, but the individual cases, dealt with in considerable numbers, indicate a pronounced increase in sub-letting of various types. Houses, many of them of a larger type, are being utilised for the accommodation of imported workers, who are maintained either as boarders feeding on the premises or as lodgers feeding independently. There is, in these cases, a tendency to crowd into a house more persons than the permitted number, and in many instances one room has been found to contain 4 or 5 beds. Where applicable, the Houses Let in Lodgings bye-laws are applied. Methods of regulating the occupancy of houses let as virtual hostels, as well as other sub-let types of houses, are at present under consideration. Officers of the Department constantly maintain vigilance in relation to these cases, but one of the major difficulties is to secure that speedy knowledge of sub-letting becomes available to the Department.

The Registrar General's figures previously quoted show a population increase of 11,100 in the 12 months from mid 1949 to mid 1950. During the year 2,687 new houses were provided, plus 138 additional units of accommodation resulting from conversions to flats and rebuilding of bomb damaged houses, and 660 were demolished or held void pending demolition, giving a net increase of 2,165 dwellings.

The Housing Manager has kindly supplied the following figures relating to the work of the Estates Department.

Total number of dwellings available for letting from 1st January—

31st December, 1950 (including 594 re-lets)	2,575
Families re-housed 1st January—31st December, 1950	3,346
Number of weekly properties in rent as at 31st December, 1950 (excluding Central Areas Management properties)	68,138
Number of new applications received during 1950 (corresponding figure for 1949 was 9,625)	8,211

Of the new applicants :—

- 81% were lodgers in rooms.
- 13% were tenants.
- 3% were awaiting marriage.
- 2% were tenants outside the City.
- 1% were lodgers outside the City.

Of the allocations made by the Estates Department, 703 were in respect of overcrowded or undesirably sub-let houses. Particulars of these cases were referred to the Public Health Department and 506 were found to be overcrowded according to the limited standards of the Housing Act, 1936. All the cases, 260 from Corporation estates and 443 from privately owned houses, concerned sub-tenant families living in rooms; 1,496 adults and 1,546 children were involved, an average of 4.3 persons per family re-housed. Of the 506 overcrowded houses 105 were found to be still overcrowded after the rehousing of the sub-tenants, in some cases by the tenant family, in others by the remaining sub-tenants.

In every case referred to this Department a visit was made, and in those cases found to be statutorily overcrowded, suitable follow-up action was taken to prevent re-crowding. Formal warning letters were sent to principal occupiers in 506 cases and further visits were made to ensure that contraventions had not occurred later. Although there is every indication that the incidence of overcrowding is very much less than in 1936, when a survey was made for the express purpose of deciding upon the amount of new building necessary to abate overcrowding, the individual cases investigated by officers of the Department include instances as acute as the worst ones found in 1936.

As required by the Housing Acts, certificates giving " Permitted Numbers " were supplied—1,220 to owners of privately owned houses, 1,952 to the Central Areas Management Department, and 2,240 to the Estates Department. These certificates involved measurement of rooms or a check of existing records in every case.

The claims of 1,318 families for priority in rehousing on grounds of ill-health, overcrowding, sanitary and structural defect were investigated, many by the Department's Medical Officers. Most of these enquiries arose through the direct application of members of the families to the Health Department, but some came via the Estates Department, members of the City Council, voluntary associations, etc. Direct reference was also made by general medical practitioners and hospitals. Health visitors and sanitary inspectors likewise have drawn attention to the existence of medical conditions in relation to which the question of rehousing in more suitable accommodation has arisen.

As a result of very careful investigation and enquiry 153 cases were referred for special consideration for priority in re-housing and associated with 589 other cases were circumstances warranting consideration in regard to the allocation of points.

INDEX

A

Accountancy and secretarial section, 202
 Adoption of children, 170
 Aged and chronic sick, 192, 200
 Ambulance services, 178
 Analytical laboratory, 72
 Analytical laboratory—lectures on functions of, 191
 Ante natal care, 127
 Ante natal clinics, 139
 Approved school—epidemic of sore throat, 71
 Area comparability factors, 38
 Area of City, 38

B

Bacteriological laboratory, 76
 Bakehouses, 216
 Bartley Reservoir—pollution of, 224
 Baths, 226
 B.C.G. clinic, 92
 Bed bureau, 133, 185
 Births, 38, 40, 45, 101
 Births—premature, 120
 Blood tests—expectant mothers, 140
 Breast milk bank, 156

C

Canal boats, 237
 Cancer, 42, 47
 Canteens—industrial, 249
 Canteens—mobile, 208
 Care of the aged and chronic sick, 192
 Care of the unmarried mother, 156
 Catastrophe service, 181
 Causes of death, 42
 Central redevelopment, 255
 Cesspools, 230
 Children Act, 1948, 160
 Children—deprived—medical care of, 160
 Children—protection from tuberculosis, 95
 Child welfare centres, 139
 Chiropody clinic, 148

Circulatory diseases, 42, 47
 Civic restaurants, 222
 Clean food campaign, 190
 Clean food guild, 190
 Climatology—Birmingham, 19
 Common lodging houses, 236
 Contributors to report, 5
 Convalescent care, 186
 Court cleansing, 240
 Cows and cowsheds, 217
 Cream—synthetic, 214

D

Dairies, 212, 217
 Day nurseries, 151
 Dead—disposal of, 240
 Deaths, 38, 41, 45, 68, 83
 Deaths—neonatal, 106
 Dental facilities, 144
 Deprived children—medical care of, 160
 Diphtheria, 49
 Diphtheria immunisation, 49
 Disabled persons, 25
 Disinfection, 239
 Disinfection—after tuberculosis, 90, 239
 Disinfestation of verminous premises, 239
 District nursing service, 149
 Domestic help service, 159
 Domiciliary midwifery service, 129
 Domiciliary treatment of tuberculosis, 95
 Drainage, 227
 Drains—obstructed, 233
 Dustbins—provision of, 230
 Dysentery, 56

E

Eating houses, 208
 Emergency maternity service, 132
 Encephalitis, 52
 Enteric fever, 53
 Epidemic of sore throat at approved school, 71
 Epidemiology—general, 49

INDEX—continued

F

Factories Act, 246
Fifty years of public health in Birmingham, 32
Food and drugs, 208
Food—clean food campaign, 190
Food poisoning, 57
Fumes, 245

G

Gas and air analgesia, 133
General epidemiology, 49
Geology—Birmingham, 19
Growth of infants—survey, 144

H

Health centres, 176
Health Committee—members, 4
Health education, 188
Health visiting service, 135
Health visitors' training course, 138
Health visitors—tuberculosis, 90
Home help service, 159
Home nursing service, 149
Hospital car service, 185
Hostels for the tuberculous, 95
House to house inspection, 232
Houses let in lodgings, 237
Housing, 250
Housing of the tuberculous, 90
Housing survey and overcrowding, 257
Human milk bureau, 156

I

Ice cream, 210
Illegitimacy, 38, 112, 156
Immunisation—diphtheria, 49
Industrial premises—supervision of, 244
Infant mortality, 38, 41, 45, 105
Infectious diseases, 49, 68
Institutional midwifery, 133

J

Job analysis of public health nursing 138

L

Laboratory services, 72
Laundry facilities for the aged and infirm, 193
Loan of sick room equipment, 195
Lodging houses, 236
Louse infestation, 238

M

Malaria, 55
Mass radiography—nursery staffs, 95, 154
Mass radiography—pregnant women, 140
Mastitis, 217
Maternal mortality, 38, 116
Maternity and child welfare, 35, 99
Maternity and child welfare centres, 139
Maternity service—emergency, 132
Maternity services, 126
Meals on wheels scheme, 193
Measles, 55
Meat inspection, 220
Medical care of deprived children, 160
Medical inspection of pre-school children, 143
Meningococcal infection, 52
Mental health, 196
Meteorological observatory—Edgbaston, 21
Middens, 230
Midwifery—domiciliary, 129
Midwifery—institutional, 133
Milk and dairies, 212, 217
Milk bureau—breast milk, 156
Milk—tuberculosis, 218
Mobile canteens, 208
Mobile surgical unit, 184
Mortuary, 241

INDEX—continued

N

- National Assistance Act, 200, 206
- National Health Service Act—General, 174
 - Section 21—Health Centres, 176
 - Section 22—Care of Mothers and Young Children, 99
 - Section 23—Midwifery, 129
 - Section 24—Health Visiting, 135
 - Section 25—Home Nursing, 149
 - Section 26—Vaccination and Immunisation, 49, 54
 - Section 27—Ambulance Services, 178
 - Section 28—Prevention of Illness, Care and After-Care, 186
 - Section 29—Domestic Help, 159
 - Section 51—Mental Health, 196
- Neonatal mortality, 107, 123
- New houses, 252
- Night watcher service, 193
- Noise abatement, 245
- Notifiable diseases, 68, 83
- Nurseries and Child Minders Regulation Act 1948, 155
- Nurseries—day, 151
- Nurseries—residential, 168
- Nursery staffs—radiological examination, 95, 154
- Nursery students, 154
- Nursery training, 154
- Nurses' agencies, 160
- Nursing homes, 159

O

- Obstructed drains, 233
- Occupational therapy, 92
- Occupation centres, 196
- Offensive trades, 236
- Ophthalmia neonatorum, 119
- Outwork, 249
- Overcrowding, 257

P

- Parents' guidance clinic, 145
- Pemphigus neonatorum, 120
- Pethedine, 133
- Pig keeping, 240

- Pleasure fairs, 238
- Poliomyelitis and polioencephalitis, 58, 68
- Population, 38, 44
- Postnatal clinics, 140
- Prematurity, 120
- Prevention of Damage by Pests Act, 1949, 241
- Prevention of illness, care and after-care, 186
- Privy pans, 230
- Protection of patients' property, 200, 206
- Psychiatric social service, 196
- Public health—fifty years of, in Birmingham, 32
- Public health laboratory service, 76
- Puerperal pyrexia and sepsis, 119

R

- Rainfall details—Birmingham, 23
- Redevelopment—central, 255
- Refuse collection and disposal, 229
- Rehabilitation of the tuberculous, 91
- Relief—Birmingham, 19
- Remedial exercise clinics, 147
- Remploy factory, 91
- Rent Restrictions Acts, 233
- Respiratory diseases, 42, 47
- Restaurants—civic, 222
- Rodent control, 241

S

- Salvage, 229
- Sanitary conditions, 224
- Sanitary conditions—lectures by staff, 191
- Sanitary inspection, 231
- Scabies, 239
- Scarlet fever, 55
- Secretarial and accountancy section, 202
- Sewerage, 227
- Sewing classes, 148
- Shellfish, 215

INDEX—continued

Shops—supervision of, 243
 Sick room equipment—loan of, 195
 Slaughterhouses, 220
 Smallpox, 54
 Smoke abatement, 244
 Smoke abatement—education in, 191
 Social conditions, 24
 Sore throat—epidemic of at approved
 school, 71
 Staff—ambulance, 184
 Staff details, 7
 Statistics—vital, 38, 47
 Stillbirths, 38, 41, 46, 102, 115, 121
 Sunshine details, 23
 Swimming baths—sampling of water,
 226
 Synthetic cream, 214

T

Temperature details—Birmingham, 23
 Tents, vans and sheds, 237
 Tips, 237
 Town and Country Planning, 233, 246
 Training of midwives, 133
 Tuberculosis, 83
 Tuberculosis—after care, 90
 Tuberculosis—B.C.G. clinic, 92
 Tuberculosis—domiciliary treatment of
 95
 Tuberculosis—health visitors, 89
 Tuberculosis—integration of service, 96
 Tuberculosis—milk supply, 218
 Tuberculosis—protection of children
 from, 95
 Tuberculous—housing of, 90
 Tuberculous—provision of hostels, 95
 Tuberculous—rehabilitation of, 91

U

Undulant fever, 53
 Unmarried mothers—care of, 156

V

Vaccination, 54
 Venereal diseases, 70, 82, 187
 Vesting programme, 232
 Veterinary inspection, 217
 Visitors—tuberculosis, 89
 Vital statistics, 38, 47

W

Ward boundaries, 26
 Water supplies—provision of internal,
 234
 Water supply, 224
 Water—swimming bath—sampling of,
 226
 Welfare centres, 139
 Welfare of the aged and chronic sick,
 192, 200
 Wells—private, 226
 Whooping cough, 56

